

MODELING OF THREE-DIMENSIONAL WIND-DRIVEN HYDRODYNAMIC AND
ENVIRONMENTAL PROCESSES IN THE ARABIAN/PERSIAN GULF

A Dissertation

by

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ABSTRACT

A three-dimensional hydrodynamic model has been developed to investigate thermohaline processes, ocean circulation driven by winds, and other hydrodynamic features in the Arabian/Persian Gulf area. The validated model can be used to study a wide array of effects and processes in the region, with potential application to future climate scenarios and the resultant effects on oceanic processes.

In the first part of this dissertation, a three-dimensional hydrodynamic model is developed for the Arabian/Persian Gulf; details regarding model grid resolution and forcing are discussed therein. The model is validated with data from field measurements offshore of Kuwait collected by the Texas A&M University at Galveston (TAMUG) Microstructure Group in 2013. Furthermore, with the validated model, we conduct a sensitivity study to determine the most significant driver of thermohaline processes in the Gulf region. The evaporation and precipitation rates and winds are significant influences on the physical and hydrodynamic processes in the Gulf, and the local salinity changes near the river estuary were affected by the northern rivers.

In the second part of this work, several applications of the validated model are conducted to study various processes in the Gulf; these include the effects of desalination process and extreme conditions on the thermohaline characteristics. The model is able to identify the effects of brine discharge on desalination, by investigating the variations of salinity and temperature from the desalination process in the Arabian/Persian Gulf. The modeling system could also be used to evaluate the impacts of Cyclone Gonu 2007, developing the hydrodynamic (FLOW) and coupled (FLOW+WAVE) models. The models show the high vulnerability of the Gulf coast, and

the spatial and temporal variations in salinity and temperature due to the massive inflows of fresh water from the Indian Ocean.

The final part of this dissertation includes the summary and discussion of this work, and future research with the effect of climate change, which can affect established weather patterns and, consequently, the ocean circulation and environment in the Gulf region. The modeling system will provide an important perspective on global climate change in the data scarce Gulf region.

DEDICATION

To my parents and my lovely wife,
who always love, encourage, motivate, inspire, and unconditionally support me
every step of my way.

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Dr. Ayal Anis and his research group ‘Texas A&M University at Galveston Microstructure Group’ provided the field measurement (using ADCP offshore of Kuwait) for model validation. They performed on-site measurement and collected currents and temperature data.

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CHAPTER I

INTRODUCTION

The investigation of hydrodynamic features forced by oceanographic and meteorological conditions is important for characterizing salinity, temperature and circulation fields for a given region. A numerical modeling system could be used to provide the hydrodynamic predictions, climatology of waves, wind-driven mixing dynamics and transport, and effects of climate change. As such, accurate oceanographic boundary conditions and meteorological forcing are essential, and climatological conditions for an area are often used. However, there is a worldwide warming trend, with attendant sea level rise, higher salinity and temperature effects (IPCC, 2013), causing negative impacts to the environmental health of the ocean. The marine system, in recent years, shows abnormal changes by anomalous weather conditions and human use (Miller et al., 2017). The Arabian/Persian Gulf (simply ‘the Gulf’) is an interesting region in which to examine oceanic phenomena potentially affected by global climate change and human impact. The Gulf is especially unique because of the ocean geology, the relatively shallow depth (average depth of 35m), its sole connection to the global ocean system through the narrow Strait of Hormuz, and the fact that it is an “inverse estuary” (shallow region of high salinity connected to an oceanic body of lower salinity; Sadrinasab and Kämpf, 2004). In addition, the climate of the Gulf is generally hot and arid, with the primary coherent meteorological feature being the “*Shamal*”, the strong northwesterly winds generally present during the summer and winter (Murty and EL-Sabh, 1984). The ‘oil boom’ in the Gulf has led to the establishment of modern wealthy countries (Mansfeld and Winckler, 2007), increasing population and advancing industry growth, resulting in enhancement of living standards in the region. However, the scarcity of

potable water is a major concern (Bachelier, 2012), as the limited groundwater supply could not meet the growing population in the Gulf countries (World Bank, 2005). Seawater desalination is presently a major source of potable fresh water for the Gulf, as a response to high water usage demand (Ahmed and Razania, 2012). Renewable water from desalination has been widely used for various purposes as a sustainable source. Many environmental impacts of desalination process, however, have been explored with current desalination practice in the Gulf region at point of discharge. Thus, the fundamental investigation of increasing desalination market and the continued interest of ocean water-quality should be required at this point in time.

In this study, the hydrodynamic features of the Gulf will be investigated, using a three-dimensional hydrodynamic model. The desalination process, in addition, will be examined in order to evaluate the potential environmental impact for the Gulf area. Furthermore, extreme weather conditions that have increased the infrastructure's vulnerability to hazards along the Gulf coast will be considered, and risk analysis and extreme value statistics applied; this will include consideration of ocean surface waves. The final part of this dissertation will include the long-term scenarios response to the future climate changes and projected increasing desalination process will be established. We predict the future trends of desalination effect, and discuss the environmental planning and assessment for the Gulf.

The dissertation is organized as follows:

Chapter II provides an overview of the numerical modeling of ocean hydrodynamics forced by oceanographic and meteorological conditions and their effects on the environmental response in nearshore and offshore areas. These include wind-driven mixing processes, salinity and temperature transport, coastal and ocean circulations, and surface dynamics. A three-dimensional hydrodynamic model (DELFT3D-FLOW; Deltares, 2011a) has been developed and

incorporated to carry out these predictions in the region. In addition to regional meteorological and oceanographic conditions used as forcing for oceanographic processes, the seasonal discharges of four major rivers in the northern Gulf region were applied to the model. The model was able to reproduce the general features of hydrodynamic predictions in the Gulf and has been validated using field measurements collected by the Microstructure Group at Texas A&M University Galveston. A sensitivity study is also performed to investigate the model response to several types of climatological forcing. Thus, the hydrodynamic predictions driven by the model, and appropriate applications will be discussed in this chapter.

In Chapter III, the environmental impact of desalination processes in the Gulf will be studied by examining the variations of salinity and temperature which result. Desalination of seawater is a significant source of potable water in many areas of the world. However, it is not yet clear what the environmental effects of increased brine discharge to the nearshore and offshore environments might be, particularly in the long-term. As groundwater and surface water sources may become scarce or endangered in the Middle East and North Africa (MENA) region (Immerzeel et al., 2011), water desalination activities are expected to continue growing in quantity and capacity, particularly in the Gulf. It is a source of anxiety since the desalination process has caused negative effects on the coastal and ocean environments in the Gulf (von Medeazza, 2005; Lattemann and Hopner, 2008). A simple test-model has been created and tested to investigate the environmental effects of desalination discharge in the Gulf, and then developed the model with the available desalination data for the Gulf region.

In Chapter IV, details of the application of the hydrodynamic model to the prediction of extreme weather events in the Gulf are presented. The Delft3D system with FLOW and WAVE models (Deltares, 2011b) was employed to simulate the physical processes of Super Cyclone

Gonu (2007), and investigate various characteristics, including the hydrodynamics, salinity and temperature transports, and wave predictions of extreme event. In addition, the effect of potential future cyclones with different sizes of circular wind grid, intensities and storm tracks on the region will be examined for the possible impacts in the Gulf. Cyclone Gonu was a very rare extreme weather event, but this chapter will discuss various possibility of potential cyclones and early warning perspective on environmental changes for future coastal hazards in the Gulf region.

Lastly, Chapter V outlines the conclusions of this study and discussions for future plan and research; including the effect of climate change, which can affect established weather patterns and, consequently, the ocean circulation and environment in the Gulf region. Because of the scarcity of data on the oceanography of the Gulf, this work provides information to help further understanding of the ocean hydrodynamics of the Gulf and the continuing interest of environmental effects from human use and coastal hazard.

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CHAPTER II

HYDRODYNAMIC MODELING*

The Persian Gulf (also known as the Arabian Gulf) is a long, narrow and semi-enclosed body of water in Western Asia, with the Strait of Hormuz serving as the major connection between Gulf and Indian Ocean. A unique meteorological feature in this region is the '*Shamal*', a strong northerly wind usually present at varying intensity during summer and winter. There is generally a strong oceanic stratification in the Gulf under quiescent conditions, but the *Shamal* has the potential to cause abrupt changes in the circulation, mixing, flushing and hydrodynamics in the Gulf. In this chapter, a three-dimensional characterization of the Arabian/Persian Gulf has been developed using the Delft3D-FLOW model to investigate the hydrodynamic and transport characteristics of the region. In addition to regional meteorological and oceanographic conditions used as forcing for the model, the seasonal discharges of four major rivers in the northern Gulf region were also applied. The model was able to reproduce the general hydrodynamic features in the Gulf, as has been validated by comparison to the available observations. Variability of salinity in the Gulf was strongly affected by evaporation and precipitation rates, producing high levels of salinity in summer. The wind was also a major influence on hydrodynamic characteristics in the Gulf, generating lateral and vertical mixing of salinity and temperature and potentially destroying stratification features. It is associated with the physical transport of thermohaline process.

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2.1 Introduction

The Arabian/Persian Gulf (or simply, the Gulf) is a large and semi-enclosed body of water, approximately 1,000 km in length northwest to southeast and a relatively narrow 550 km in width, with the Strait of Hormuz serving as a major connection between Gulf and Indian Ocean (Emery, 1956). The Strait of Hormuz, a deep and narrow channel of about 56 km in width, provides a critical passage for the energy trade (Rodrigue, 2004) as shown in Figure 2.1. The ocean circulation in the Gulf is driven by several types of forcing (Chao et al., 1992). Due to the high evaporation rate in the Gulf, the salinity is often greater than 40 parts per thousand (ppt), making it an “inverse estuary” since the Arabian Sea (the water body connected to the south of the Strait of Hormuz) often has a salinity of 35 ppt. A counterclockwise circulation pattern is

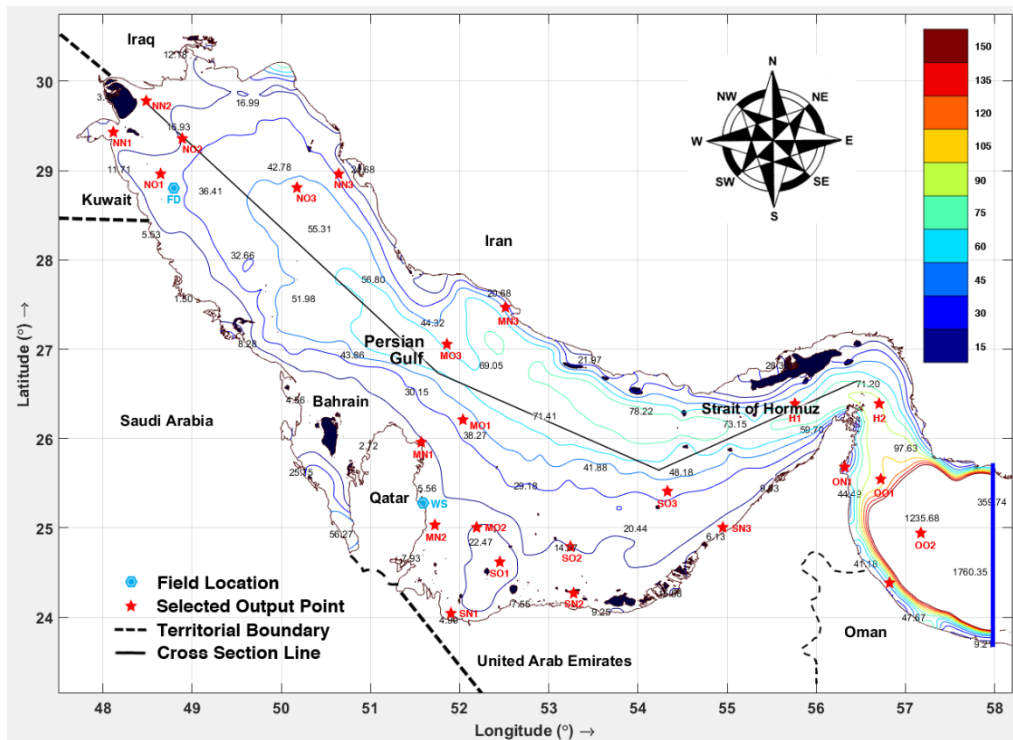


Figure 2.1 Location map of field measurements and the Arabian/Persian Gulf bathymetry. (N*: North, M*: Middle, S*: South, O*: Oman, H*: Strait of Hormuz, *N: Nearshore, *O: Offshore, FD: Field deployment, WS: Wind Station).

generally dominant in the Gulf (Reynolds, 1993), with lower salinity water traversing over the deeper part of the Gulf near Iran and saltier water exiting along the Saudi Arabia, Qatari and United Arab Emirates (UAE) coastlines. Moreover, the winds steered from north to southeast are predominant, and influence the wind-induced circulation in the Gulf (Aboobacker et al., 2011).

In recent years, observed alterations to the global weather system have been potentially linked to long term climate change effects. The Intergovernmental Panel on Climate Change (IPCC Fifth Assessment Report, 2014) provided details of widespread impacts of climate change and linkages to consequences of human use. The isolated nature of the Gulf, with the Strait of Hormuz its sole connection to the world's oceans, can potentially amplify and vary any climate change effects with different scenarios by the depth, proximity to water exchange, flushing, mixing and effluent (Elhakeem and Elshorbagy, 2015). Barth (2001) provided a depiction of sea-level changes in the Gulf during the last 8000 years using transgression and regression (Kassler 1973; Al-Asfour 1978; Felber et al., 1978), and found significant change in the Gulf compared to the present sea level. Zhang et al. (2005) have investigated the climate trends of the Middle East region with 27 indices indicative of extreme conditions during the period of 1950 to 2003. These results correspond well with similar trends in central and south Asia (Klein Tank et al., 2006). In addition, the *Shamal* winds over the Gulf interact dynamically with the air-sea interface (Glejin et al., 2013), and also influence atmospheric and oceanographic circulation, and heat exchange (Thoppil and Hogan, 2010b). Furthermore, Riegl (2003) hypothesized that climate change effects associated with the climate scenario of 2100 will lead to a weaker *Shamal*, resulted to reduced vertical mixing, raised seawater level, increased precipitation and temperature, intense heat and cooling system. The Gulf environment is closely linked with various hydrodynamic characteristics, namely forced by winds, tides, rivers and other weather conditions, some of

which can be impacted by climate change effects. Intense seasonal '*Shamal*' winds cause surface mixing, convective cooling and overturning with surface heat loss. The winter *Shamal* delivered cold, dry air that bring about increasing surface heat loss (Thoppil and Hogan, 2010b).

The hydrodynamic features in the Gulf region are a result of the strong wind forcing, thermohaline structure, water mass exchange through the Strait of Hormuz, and the Gulf circulation. The changes of salinity and temperature in the Gulf due to the river discharge and other point sources (such as desalination outfalls) and the vertical profile changes due to strong winds and other climatological conditions can affect the Gulf hydrodynamics and environmental health of the Gulf. To properly simulate the vertically dynamic features and accompanying spatial and temporal variations in the Gulf, a three-dimensional model is required. Chao et al. (1992) developed a three-dimensional hydrodynamic model to study the Gulf circulations forced by the climatological and oceanographic conditions present in the region, and simulated the cyclonic overturning circulation in the Gulf (Yao, 2008). Kämpf and Sadrinasab (2006), using finer resolution (7 km) than Chao et al. (1992), improved the model to study circulation and seasonal features forced by realistic conditions. They resolved the appropriate mesoscale baroclinic instabilities with longer simulation times. The seasonal variability of circulation and mesoscale eddies in the Gulf was investigated by Thoppil and Hogan (2010a) using the HYbrid Coordinate Ocean Model (HYCOM). This study shows that the cyclonic circulation developed in the central Gulf during spring and was expanded to northwestern part of the Gulf until July. The Ekman dynamics and buoyancy were the significant contributors for the mesoscale eddies in the Gulf. The Delft3D-FLOW model was used to investigate hydrodynamic and water quality features affected by the river discharge in the northern Gulf (Pokavanich et al., 2014), and the hydrodynamic features in the Gulf with long-term averaged meteorological conditions

(Elhakeem et al., 2015). For both 5 and 10 km spatial resolutions, they found slight improvement when using the higher resolved grid in their sensitivity study.

The present study uses the three-dimensional hydrodynamic model Delft3D-FLOW to investigate the effect of various environmental forcing on the hydrodynamics of the Gulf region. Unlike Elhakeem et al. (2015), who used averaged conditions for forcing in Delft3D-FLOW, this present study uses information at higher spatial and temporal resolution (including heat flux and river discharge) for forcing conditions over a grid (2-3 km resolution) with finer resolution than previous work. To investigate the effect of point sources such as desalination discharge on the dynamics of the Gulf, a higher resolution is likely required. Additionally, unlike other Gulf studies which concentrate on specific meteorological events such as the *Shamal*, this study investigates the variability in hydrodynamic conditions due to climatological conditions over a multi-year span.

As stated above, the Gulf has unique characteristics in oceanographic and climatological processes, all of which are susceptible to climate change conditions. These changes influence input and boundary conditions for the model, and further modeling studies will examine this effect. However, it is important to first outline the modeling system, grid configuration, and validation of the model. It then can be used as a basis to obtain useful future scenarios for the Gulf environment against the effect of global climate change and in other applications.

2.2 General Background and Oceanographic Meteorology

2.2.1 Study Area and Climate Environment

The Gulf is bordered by Kuwait and Iraq to the north, Qatar, Bahrain and Saudi Arabia to the west, United Arab Emirates (UAE) and Oman to the South, and along the east coast of Iran,

and is located between 24-30° N and 48-57° E (Figure 2.1). The Gulf's northwest and west coasts are shallow with a mean depth of about 35 m and a maximum depth of 90 m in the Strait of Hormuz (Agah et al., 2009), and the climate is generally arid with a high evaporation rate (Meshal and Hassan, 1986; Ahmad and Sultan, 1991). Off the coast of UAE, in particular, is a large region of shallow water with intense evaporation (Reynolds, 1993). This high evaporation rate can lead to water with high salinity, often up to 57 ppt in the shallow regions (John et al., 1990), compared to around 37.5 ppt in the nearby Arabian Sea. The range of maximum salinity over the extent of the Gulf is about 40-40.5 ppt (Brewer et al., 1978; Chao et al., 1992), while the temperature in Gulf can experience significant seasonal variation; exceeding 34°C in summer and dropping to less than 15°C in winter (Rezai et al., 2004). The geology of the region primarily consists of sedimentary rocks of limestone with abundant corals present since the Triassic age (Powers et al., 1966), the presence of which can be correlated with the higher saline conditions over the Gulf (Camoin and Davies, 2009). In addition, the Gulf region experiences a mainly arid climate associated with desert conditions; very hot and dry in summer, and relatively cool in winter.

2.2.2 Wind Characteristics

A major feature of wind forcing in Gulf is the *Shamal*, which are seasonal northwesterly winds which occur primarily during the winter and summer (Perrone, 1979) as shown schematically in Figure 2.2. The *Shamal* arises from the interaction between high pressure systems over Saudi Arabia and low pressure systems over the Gulf of Oman and Pakistan, and is further amplified due to channelization by the Zagros mountains of Iran, the Higaz and Assir mountains of Saudi Arabia and Hajar mountains of Oman (Ali, 1994; Barth and Khan., 2008).

These events are most evident during both winter and summer; however, while they have the same general synoptic conditions, they have different characteristics. The winter *Shamal* generally occurs from November to March, and is a strong, cold and dry wind, continuous over 2 to 5 day intervals (Perrone, 1979), while the summer *Shamal* occurs mainly during June to July and can be continuous over 30 days. Normally, the average wind speed ranges from 11 to 13 m/s and it may reach 30 m/s in extreme condition (Ali, 1994).

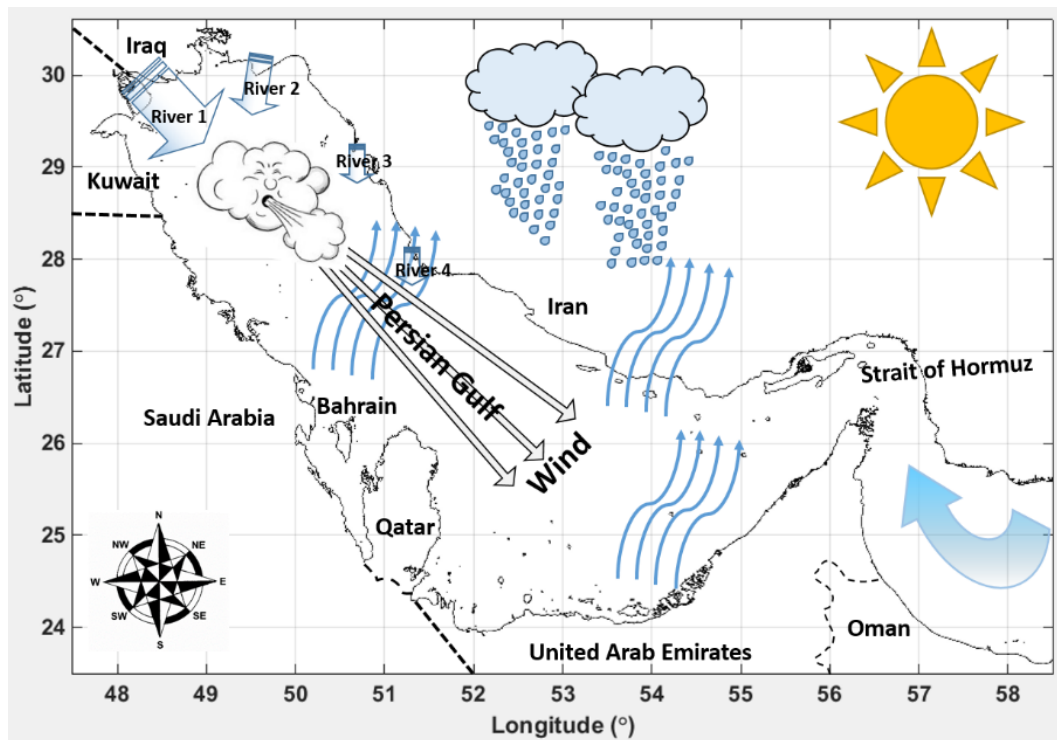


Figure 2.2 Schematic of climatological and oceanographic features in the Gulf.

2.3. Modeling System

2.3.1 Model Description

The hydrodynamic model Delft3D-FLOW (Deltares, 2011), based on the non-linear shallow water equation in two or three dimensions, is used. It solves the Navier Stokes equation for an incompressible fluid using the shallow water approximation and the Boussinesq

assumption for buoyancy-driven flow. The grid of domain in the model is generated from the open sea boundary at the Gulf of Oman to the northern Gulf using the RGFRID module in the Delft3D modeling suite. It is a spherical rectangular grid with a resolution of $0.03^\circ \times 0.03^\circ$. The vertical discretization is a terrain-following sigma-level coordinate system with ten vertical layers. Bathymetry from the GEneral Bathymetric Chart of the Oceans (GEBCO, 2014) with a global spatial resolution of 30 arc-seconds, is adopted as shown in Figure 2.1. Finer vertical layers near the water surface and bottom will help with wind-driven and bottom roughness effects. The ten vertical layers (divided as 5, 5, 10, 10, 20, 20, 10, 10, 5, 5%, from free surface to the bottom) are employed for the thicknesses of water depth.

2.3.2 Boundary Conditions

One open sea boundary in the Gulf of Oman (Figure 2.1) extends to 57.9°E and 23.8°N to 25.6°N . The interface between the northern Arabian Sea and the Gulf of Oman, associated with seasonal upwelling and complicated mesoscale dynamics in the region (Johns et al., 1999) represents the influence of the boundary forcing along an open boundary. A water level open boundary condition is used and forced by the tidal astronomic constituents from the TPXO 7.2 Global Inverse Tide Model (Egbert and Erofeeva, 2002).

Table 2.1 Astronomical amplitude and phase data for two different ends of open sea boundary.

Location	Open Sea Boundary A		Open Sea Boundary B	
Component Set	Amplitude (m)	Phase (degree)	Amplitude (m)	Phase (degree)
K_1	0.383	340.19	0.386	339.77
O_1	0.201	347.16	0.206	342.36
M_2	0.657	158.33	0.675	156.87
S_2	0.253	189.92	0.261	189.13

Table 2.1 shows the specified the astronomical data of semi- and diurnal modes at open sea boundary in model. In addition, the offshore transport boundary conditions were obtained from

the so-called MyOcean Model (<http://marine.copernicus.eu/>, a product of GLOBAL_REANALYSIS-PHYS_001_011, 2016). Table 2.2 represents the monthly mean salinity and temperature at the surface and bottom of open sea boundary. These represent time and depth-varying boundary conditions of water salinity and temperature, and linear interpolation is applied for intermediate depths. (All input conditions of boundary conditions are attached in Appendix A).

Table 2.2 Monthly mean climatological data from MyOcean model (example 2013). (*A: at 57.9°E and 23.8°N, B: at 57.9°E and 25.6°N)

Salinity		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013 Yr	Sur A	36.57	36.55	36.58	36.64	36.71	36.79	36.83	36.78	36.70	36.70	36.77	36.76
	Bot A	36.33	36.44	36.50	36.57	36.65	36.68	36.67	36.65	36.71	36.72	36.59	36.41
	Sur B	36.54	36.52	36.53	36.60	36.65	36.64	36.59	36.50	36.51	36.7	36.75	36.69
	Bot B	36.22	36.31	36.39	36.47	36.50	36.53	36.69	36.82	36.79	36.66	36.48	36.34
Temperature		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013 Yr	Sur A	25.03	23.93	24.42	26.00	27.78	29.69	30.9	30.37	30.26	30.86	29.76	27.24
	Bot A	19.63	20.14	20.70	20.42	19.67	19.72	19.70	19.2	19.21	19.03	19.24	19.63
	Sur B	24.77	23.46	23.54	24.76	26.59	29.34	31.45	31.54	30.75	30.21	28.61	26.20
	Bot B	19.37	20.19	20.51	20.18	19.19	18.90	19.59	19.66	19.42	18.39	18.66	20.11

2.3.3 Physical Parameters

The wind input is based on the temporally and spatially varying dataset from the National Centers for Environmental Prediction (NCEP) Climate Forecast System Reanalysis (CFSR, Saha et al., 2010 and 2012). Using the one-seventh-power rule (Masters, 2004), the wind speeds at 10 m elevation are calculated with analysis wind data (at 100 m elevation).

$$U_{10} = U_z \times \left(\frac{10}{z}\right)^{1/7} \quad (\text{Eq. 2.1})$$

where, U_z is the wind speed at height z above the water surface. Wind drag coefficients are 0.00063 and 0.00723 for the wind speed at 0 m/s and 100 m/s, respectively (Azam et al., 2006); these are used to quantify the wind forcing on the water surface. Seasonally averaged wind

speeds (m/s) and directions (°) in the nearby northern Qatari coast are shown in Figure 2.3.

Constant horizontal eddy viscosity and diffusivity with the $k-\mathcal{E}$ three-dimensional turbulence model are specified at $15 \text{ m}^2/\text{s}$ in the Gulf, which are in line with previous studies (Elhakeem et al., 2015; Alosairi et al. 2011; Kämpf and Sadrasab, 2006). These values depend on the flow and the grid size, so that the range of 10 to 100 in horizontal eddy viscosity and eddy diffusivity is proposed for large areas with coarse grid (hundreds of meters or more, Deltares, 2011).

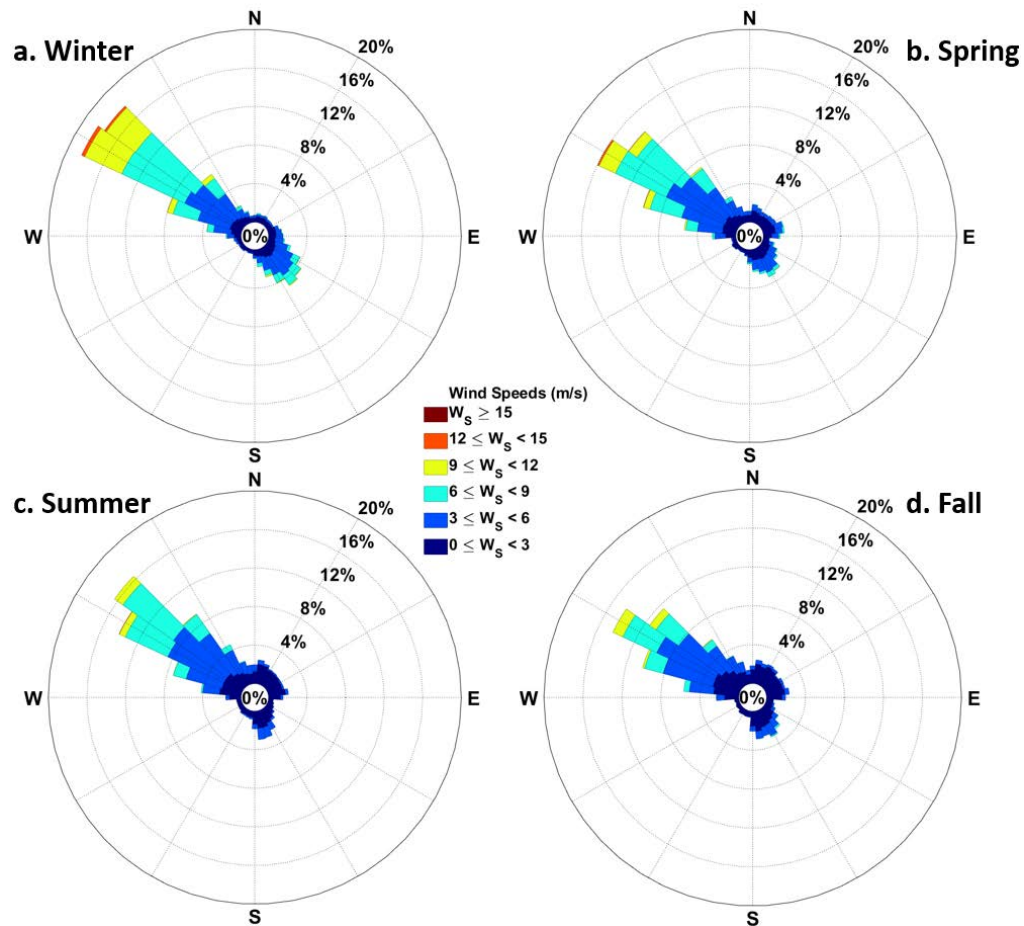


Figure 2.3 Averaged seasonal wind speeds (m/s) and directions (°) near Qatar: a. Winter, b. Spring, c. Summer, d. Fall (Jan, 2004 to Jan, 2016).

2.3.4 Heat Flux

An ocean heat flux model (Gill, 1982; Lane, 1989), typically applied for a body of water with a large surface area (Deltares, 2011), is selected for the Arabian/Persian Gulf. The heat flux transfer process is a significant feature in the Gulf due to the high evaporation and precipitation in summer and winter (Ahmad and Sultan, 1991; Abualnaja, 2009). Kämpf and Sadrinasab (2006) developed a monthly mean climatological forcing, such as air temperature ($^{\circ}\text{C}$), cloud cover (%), relative humidity (%), precipitation (mm/hr), using 54 years (1948-2002) of National Oceanic and Atmospheric Administration (NOAA) data. Elhakeem et al. (2015) estimated the monthly mean evaporation rate (mm/hr) to produce an optimal fit of salinity results with measured values by Reynolds (1993). Table 2.3 shows the monthly mean meteorological data, which is applied over the entire Gulf domain. In addition, Table 2.4 represents the remaining specified physical parameters in the model.

Table 2.3 Monthly mean climatological data (Kämpf and Sadrinasab, 2006; Elhakeem et al., 2015).

Mon	Air temperature ($^{\circ}\text{C}$)	Cloud cover (%)	Relative humidity (%)	Precipitation (mm/hr)	Evaporation (mm/hr)
Jan	14.91	34	66	0.06	0.11
Feb	16.29	22	57	0.04	0.09
Mar	19.92	16	46	0.03	0.08
Apr	24.11	10	35	0.01	0.09
May	28.78	8	25	0.00	0.09
Jun	31.04	10	22	0.00	0.12
Jul	32.85	10	24	0.00	0.15
Aug	31.77	8	26	0.00	0.17
Sep	29.77	4	31	0.00	0.17
Oct	27.14	7	41	0.02	0.17
Nov	21.48	20	55	0.03	0.15
Dec	17.07	26	64	0.04	0.14

To allow baroclinic effects to properly propagate through the domain from the open boundary, a model spin-up is used. A sufficient spin-up leads to a state of statistical equilibrium under the specified forcing using the optimal parameter set, and provides an initial sea state for

the model validation. The model spin-up was performed from rest on January 1st, 2009 for 4 years using the salinity and temperature from the MyOcean model. Figure 2.4 shows the results of model spin-up in the northern, middle and southern Gulf. During the model calibration, the Manning coefficients (used to quantify bottom friction effects) were determined to meet the best

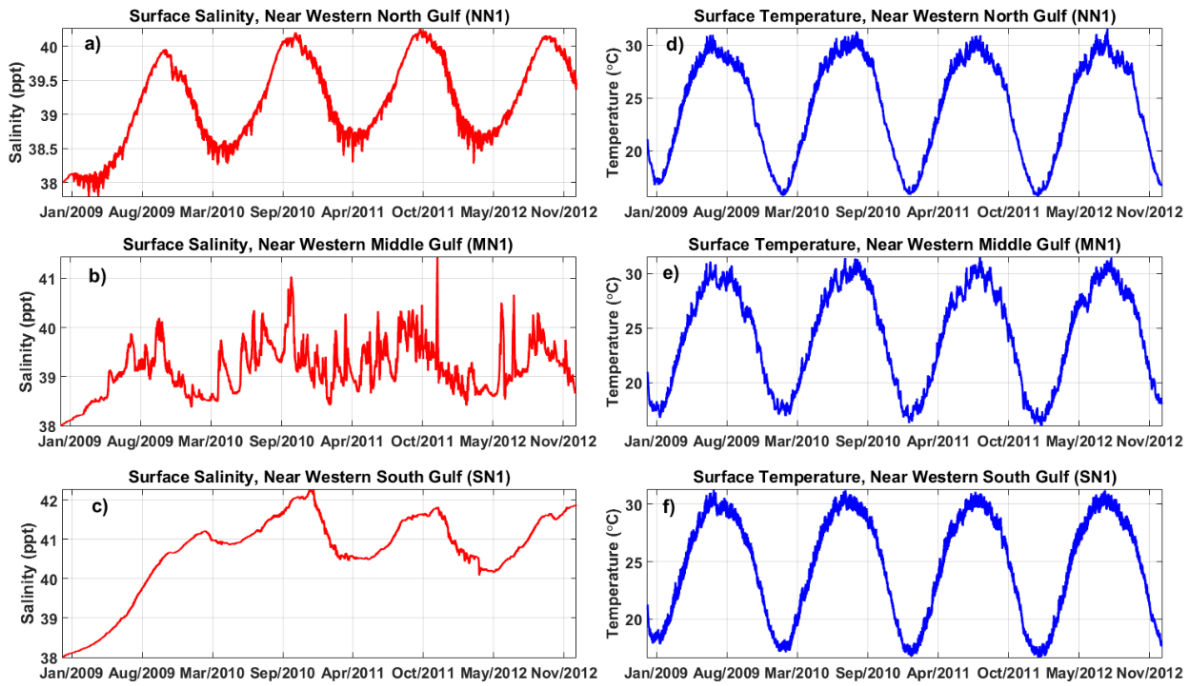


Figure 2.4 Example of model spin-up results in the Gulf. Location of points shown in Figure 2.1.

comparison of predicted current speeds with the field measurement. The Dalton and Stanton numbers shown in Table 2.4 were used for evaporation heat flux and heat convection (respectively) in the ocean heat flux model (Deltares, 2011).

Table 2.4 Physical parameters in the Delft3D modeling.

Manning Bottom Roughness ($m^{1/3}s$)	Water Density (kg/m^3)	Air Density (kg/m^3)
$0.018(u) / 0.01(v)$	1026	1
Horizontal Eddy Viscosity / Diffusivity (m^2/s)	Dalton Number	Stanton Number
15 / 15	0.001	0.001

2.3.5 Numerical Parameters

This input group of Delft3D-FLOW is related to the drying and flooding procedures of the model (Deltares, 2011). In addition, the numerical advection schemes are implemented to solve the momentum and the transport equations. The *Cyclic* method (Stelling and Leendertse, 1992), based on minimized phase error scheme, is applied to the momentum equation to solve efficiently in the horizontal and vertical direction with at least second order accurate (Deltares, 2011). On the other hand, the *Van Leer-2* scheme (Van Leer, 1974) is employed for the solution of the transport equation. It is somewhat less accurate than the *Cyclic* method, but this scheme is better able to replicate sharp density interfaces (Ilegbusi et al., 1997). Normally, the numerical method with upwind scheme may bring about numerical diffusion which can produce non-physical results (Andrews and Spalding, 1990). High-order schemes, such as *Cyclic* method, can reduce this problem, but it may lead to numerical oscillations due to the sharp density gradient. The volume fraction (f) of each fluid should be between 0.0 and 1.0 at every time step, but undershoots ($f < 0$) and overshoots ($f > 1$) lead to unrealistic results and negatively affect the momentum equation in terms of interface friction (a product of volume fractions). The Van Leer-2 scheme can be used to avoid under- and overshoots for preserving high-order numerical accuracy.

2.3.6 River Inflows

River discharge values from four rivers in the northern Gulf (shown in Figure 2.2) were applied to the modeling system. The largest river, Shatt Al Arab (a convergence of the Tigris, Euphrates and Karun rivers), is located in northern edge of the Gulf. Other main rivers, the Hendijan, the Hilleh and the Mand, occur mostly on the Iranian side of the Gulf. The volumes of

rivers outflow rates were measured for scientists on the Mt. Mitchell expedition by Iranian researchers (Reynolds, 1993). Table 2.5 shows the monthly mean river outflow (m^3/s) by Kämpf and Sadrinasab (2006) who used a sinusoidal variation between the maximum discharge (in April) and the minimum discharge (in October). In addition, a uniform salinity (20 ppt) and a temperature variation with a maximum of 32 °C in July and a minimum of 16 °C in December were assumed (Kämpf and Sadrinasab, 2006) for this study.

Table 2.5 Estimated monthly mean river discharge applied in model.

Mon	Shatt al Arab (River1, m^3/s)	Hendijan river (River2, m^3/s)	Hilleh river (River3, m^3/s)	Mand river (River4, m^3/s)	Salinity (ppt)	Temperature (°C)
Jan	208.6	29.1	63.6	198.7	20	18
Feb	229.5	32.0	70.0	218.6	20	21
Mar	250.3	34.9	76.3	238.5	20	23
Apr	271.2	37.8	82.7	258.3	20	25
May	250.3	34.9	76.3	238.5	20	27
Jun	229.5	32.0	70.0	218.6	20	30
Jul	208.6	29.1	63.6	198.7	20	32
Aug	187.7	26.2	57.2	178.8	20	29
Sep	166.9	23.3	50.9	159.0	20	26
Oct	146.0	20.4	44.5	139.1	20	22
Nov	166.9	23.3	50.9	159.0	20	19
Dec	187.7	26.2	57.2	178.8	20	16

2.4. Validation with Field Data

Data from an acoustic Doppler current profiler installed in the northern Gulf region by the Texas A&M University at Galveston (TAMUG) Microstructure Group in 2013 were used for model validation. The TAMUG data consists of measurements of current velocities and temperature at the bottom at 3-minute intervals, and was located at 28.85°, 48.79° (Lat/Lon) offshore of Kuwait, as shown in Figure 2.1. Wind data (at 30 min interval) from the Doha International Airport weather station was used for wind validation. The time frame of field data

was from January 17th, 2013 to April 22nd, 2013. The refined index of agreement (Wilmott et al., 2012) was applied to quantify the fit to field data:

$$d_r = 1 - \frac{\sum_{i=1}^n |(P_i - \bar{O}) - (O_i - \bar{O})|}{\sum_{i=1}^n (|O_i - \bar{O}| + |O_i - \bar{O}|)} = 1 - \frac{\sum_{i=1}^n |P_i - O_i|}{2 \times \sum_{i=1}^n (|O_i - \bar{O}|)} \quad (\text{Eq.2.2})$$

where n = total number of input data; P_i = predicted model value; O_i = observed field value; d_r = the sum of the magnitude for the difference between the modeled and observed deviations against the observed mean relative to the sum of the magnitudes of the ideal-model ($P_i = O_i$). The refined index d_r varies from -1.0 (extremely poor estimates) to 1.0 (perfect agreement). When $d_r = 0.0$, it indicates that the sum of ideal-model deviation ($P_i - O_i$) is equivalent to one half of the sum of observed deviation magnitude. This is an improvement over the index of agreement (Wilmott, 1981) in that it overcomes a difficulty in the assessment of a poorly-performing model. The refined index is bounded by -1.0 and 1.0, and allows for more nuanced interpretation for model performance near the lower limit of skill (near -1.0) than other existing indices. In general, the lower limit of index indicates a poorly performing model, or one in which the results are completely out of phase with respect to field observations. It is also applicable to a wide range of model performance evaluations. Three components - temperature, current and winds - were used in model validation.

2.4.1 Temperature

Temperature was measured at the bottom at the field location, and compared with the simulation result. The water depth at the field deployment is between 25 to 26 m. The instrument calibration was conducted during the first 24-hour period, while the large fluctuations near the end of the data set are a result of instrument removal (in Figure 2.5-a). Figure 2.5 shows the

comparisons between the measured and predicted temperatures. The modeled temperature was overestimated by about 1°C during January, whereas small differences less than 0.5°C were obtained during February. It is likely that the specification of monthly mean values of the parameters used in heat flux model, such as humidity, air temperature, cloud and evaporation and precipitation rates, is responsible for differences with the data. It can be seen that small differences of predicted temperatures between the surface and bottom in the field location indicate a relatively homogeneous vertical distribution of temperature during the winter. Although the modeled temperature was somewhat overestimated in the early stage of the comparison, it yielded a refined index of 0.81, indicative of a small model-data difference for the entire range of temperature variation. The red dashed line in Figure 2.5-b indicated a linear fit of the simulated bottom temperature with a slope of 0.84, comparing well to a perfect model (slope of 1.0).

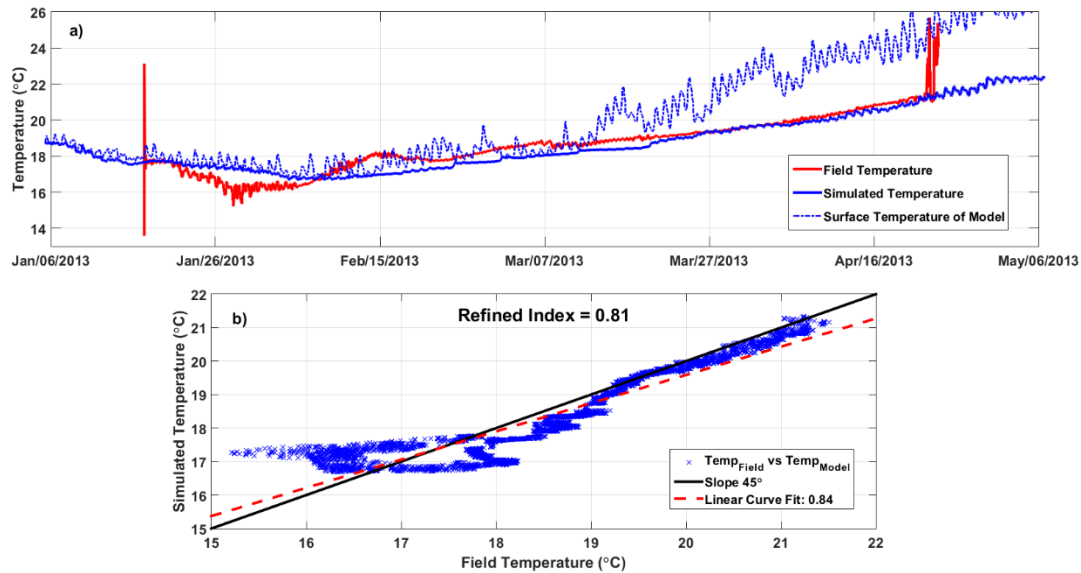


Figure 2.5 Validation of temperature simulations (°C); a) Comparison of computed surface and bottom temperatures with the observed temperature. b) Predicted bottom temperature (y-axis) vs observed bottom temperature (x-axis).

2.4.2 Currents

The currents at the bottom and middle of the model layers were also used to validate against the field measurements. Figure 2.6 shows the comparisons of the current speed and direction for each layer, and the refined index was used to quantify the degree of agreement to the field current measurements. The resulting values of refined index in Figure 2.6 were evaluated over entire time of validation; the zoomed view of a given 6 day period makes the comparisons clearer. The model shows overestimation of currents in west-east direction for the bottom and middle layers, whereas the currents in the south-north direction were underestimated

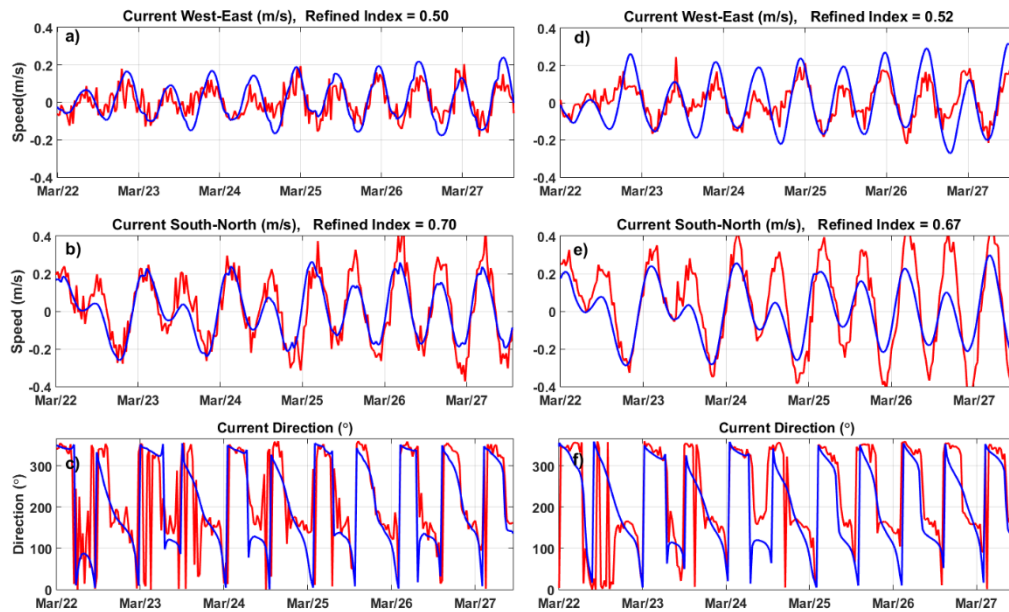


Figure 2.6 Validation of current simulation (m/s, °): Observed currents in red and predicted results in blue. Comparison of the current speeds (m/s) and direction (°); a) West-East current speed at the bottom layer. b) South-North current speed at the bottom layer. c) Current direction at the bottom layer. d) West-East current speed at the middle layer. e) South-North current speed at the middle layer. f) Current direction at the middle layer.

at both layers. Despite this, reasonable refined indices of agreement of 0.5 and 0.7 at the bottom and 0.49 and 0.67 at the middle layer were obtained for currents in west-east and north-south direction, respectively. In addition, the modeled current directions at both layers agreed well with

the measured field current directions. Possible causes for mismatch between modeled and measured currents include relatively low spatial and temporal resolutions in model setup and input fields, as well as poor bathymetric resolution in the GEBCO bathymetric database used. Moreover, the use of a uniform tidal force along the open boundary, as well as a uniform bottom roughness (Manning's coefficient, $0.018 \text{ m}^{1/3}/\text{s}$ and $0.01 \text{ m}^{1/3}/\text{s}$) over the entire Gulf to achieve the best results of comparison between predicted and observed current speed and direction, may have been responsible for errors in the amplitude and phasing of the current speeds and directions. While not ideal, the lack of any other information to provide any guidance makes this a reasonable alternative. Despite these drawbacks, however, the overall model performance in such a data poor region is certainly encouraging.

2.4.3 Wind

NCEP/CFSR reanalysis winds (Saha et al., 2010 and 2012) were validated with the observed wind data at the Doha International Airport weather station (25.26°N , 51.57°E , 10 m elevation, as shown in Figure 2.1, marked as “WS”). Reanalysis winds were available every six hours over the entire Gulf at a spatial resolution of $0.5^\circ \times 0.5^\circ$; linear interpolation was used to fit the data to the computational grid over the entire grid, as well as over time. Figure 2.7 shows a comparison of wind speeds and directions. The components of wind speeds U (West-East) and V (South-North) are verified with the refined index 0.72 and 0.69, respectively. Some differences are estimated at high and low peaks of wind speeds due to different spatial and temporal resolutions, and a small phase lag appears in the corresponding direction. However, the input-winds are in good agreement with field wind data at the airport weather station.

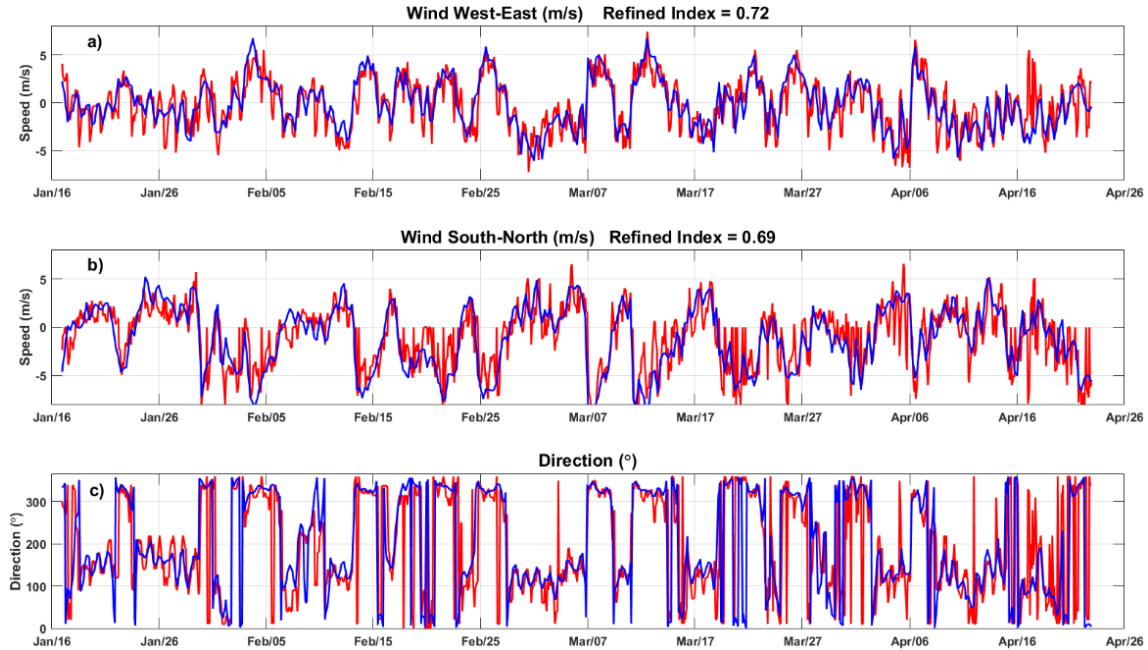


Figure 2.7 Validation of wind simulation (m/s, °): Observed wind in red and predicted wind in blue. Comparison of wind speed (m/s) and direction (°); a) West-East wind speed. b) South-North wind speed. c) Wind direction.

2.5. Sensitivity Study

Hassanzadeh et al. (2011) showed the seasonal distributions and variations of salinity due to the thermohaline flux (heat and moisture fluxes) and wind in the Gulf region, using the COHRENS (Coupled Hydrodynamical-Ecological Model for Regional and Shelf Seas) hydrodynamic model (Luyten et al., 1999). They found that thermohaline fluxes influenced the increase of salinity about 5 ppt during the year, and the effect was shown to be stronger in the shallow areas than the deeper ocean of the Gulf. It was at a maximum during September to November due to the strong evaporation. The vertical structure of salinity was well developed during the fall and winter than the spring and summer. While, the wind effect was less influence than the surface thermohaline fluxes. The wind forcing can generate the lateral and vertical mixing eddies in winter, and shows more saline water condition than in spring and summer. In

similar line with this, a sensitivity analysis was performed to determine how the model responds to different input conditions in this study. The hydrodynamic characteristics in the Gulf showed high variability when forced by various climatological conditions, but three major parameters were considered to be particularly strong influences on the hydrodynamic predictions; evaporation and precipitation rates, winds, and river inflows.

2.5.1 Evaporation and Precipitation Rates

As shown in Table 2.3, the evaporation and precipitation rates can be specified as a time-series for the model. Both rates are used as input to the heat-flux model of the modeling system, and calculate the corresponding effective back radiation and heat loss (Deltares, 2011). The hydrodynamic features in the Gulf are strongly affected by both rate parameters because of the excess evaporation relative to precipitation (Premchand et al., 1986, Ahmad and Sultan, 1991, Mosaddad and Delphi, 2013). Kumar and Prasad (1999) has analyzed the seasonal values of EMP (Evaporation Minus Precipitation) and heat flux in the Gulf. The monthly (Xue and Eltahir, 2015) and yearly (Pous et al., 2015) averaged EMP rates were estimated in the Gulf, which in turn affect the net flux transport during 1981-1990 and 1995-2000 respectively. The positive EMP rates for a long-term period may be attributed to the potential for high temperature and salinity in the Gulf region. The influence of salinity and temperature variations, driven by evaporation and precipitation rates, on processes in the Gulf are investigated with this sensitivity study. Figure 2.8 and 2.9 show the effects of evaporation and precipitation rates. Higher levels of salinity, about 41-43 ppt, were obtained nearshore of the point “South #2” than for the case without an included EMP effect, about 37 ppt. The high rates of EMP resulted in higher salinity

at surface and bottom. The salinity comparisons in both surface and bottom layers, with and without EMP rates, are shown in Figure 2.8-b and 2.8-c, respectively. Both are vertically

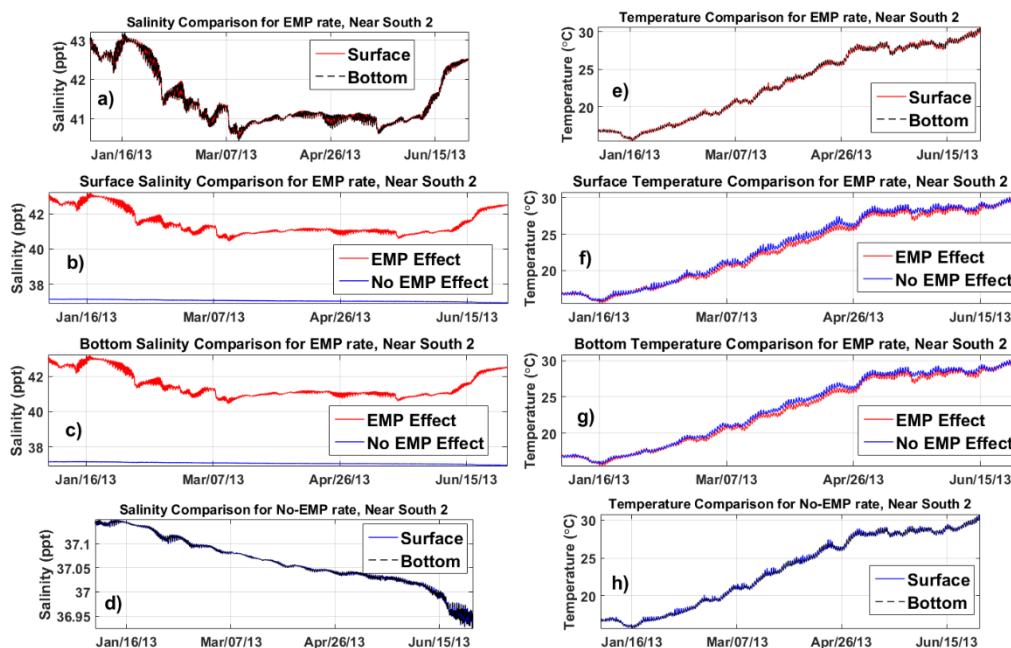


Figure 2.8 Comparisons of the salinity (ppt) and temperature ($^{\circ}\text{C}$) forced by the Evaporation and Precipitation rates (mm/hr) nearshore of southern Gulf (SN2). Comparison of a) Surface and bottom salinity on EMP, b) Surface salinity between on and off EMP, c) Bottom salinity between on and off EMP, d) Surface and bottom salinity off EMP, Comparison of e) Surface and bottom temperature on EMP, f) Surface temperature between on and off EMP, g) Bottom temperature between on and off EMP, h) Surface and bottom temperature off EMP.

homogeneous. In contrast, the temperature variation from $16 - 17^{\circ}\text{C}$ to $30 - 33^{\circ}\text{C}$ are reflected in both EMP and No-EMP cases, and mean averaged differences of temperatures in both cases are less than 1°C . The offshore point (SO2) of the southern Gulf showed similar patterns to the results in the nearshore, as shown in Figure 2.9. High levels of salinity were also produced by the effects of EMP rates offshore in the southern Gulf. The reef area around the UAE was formed by the sedimentation of limestone in shallow water (McClanahan et al., 2000), and further affected by the high evaporation rates (2 m/yr) at the southeastern coast due to the strong wind and severely arid climate. The presence of sedimentary rocks in limestone with abundant corals corresponds with the high saline water conditions (Camoin and Davies, 2009) present in the

region. Temperature, however, is not significantly affected by the evaporation and precipitation rates. The evaporation and precipitation rates play a pivotal role in the salinity rise - about 3.4-6

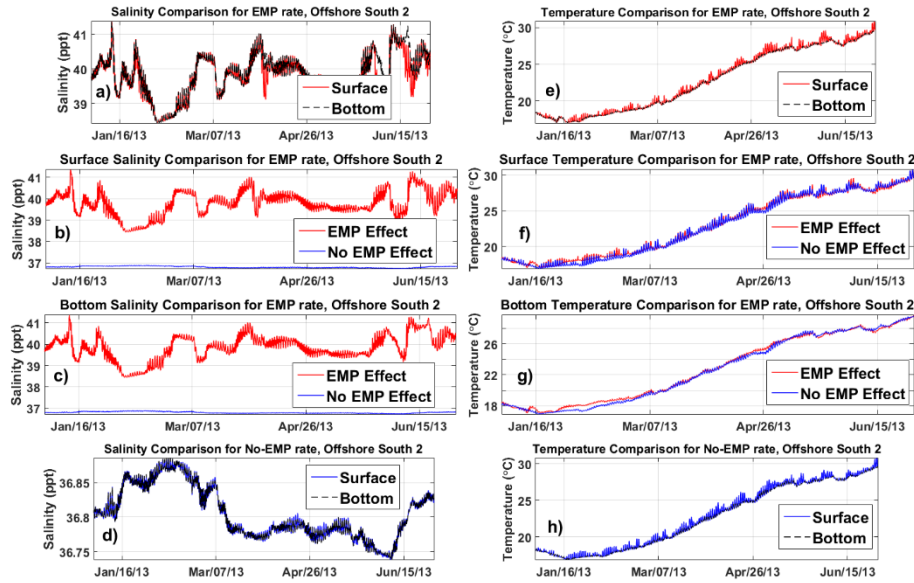


Figure 2.9 Comparisons of the salinity (ppt) and temperature (°C) forced by the Evaporation and Precipitation rates (mm/hr) offshore of southern Gulf (SO2). Comparison of a) Surface and bottom salinity on EMP, b) Surface salinity between on and off EMP, c) Bottom salinity between on and off EMP, d) Surface and bottom salinity off EMP, Comparison of e) Surface and bottom temperature on EMP, f) Surface temperature between on and off EMP, g) Bottom temperature between on and off EMP, h) Surface and bottom temperature off EMP.

ppt in the southern Gulf. Similar features of response to the EMP rates were obtained at other nearshore and offshore locations in the Gulf, but more horizontal stratifications of salinity and temperature were obtained at relatively deep locations.

2.5.2 Winds

The strong winds during *Shamal* events may induce vertical water mixing and influence the thermohaline structure, likely due to the surface wind shear stress (Reynolds, 1993). The *Shamal* wind is primarily northwesterly, and its intensity is seasonal (Perrone, 1979). To examine the effect of winds on salinity and temperature, winds were deactivated (denoted as the case “Off-winds”) and model runs performed with all other input conditions identical between

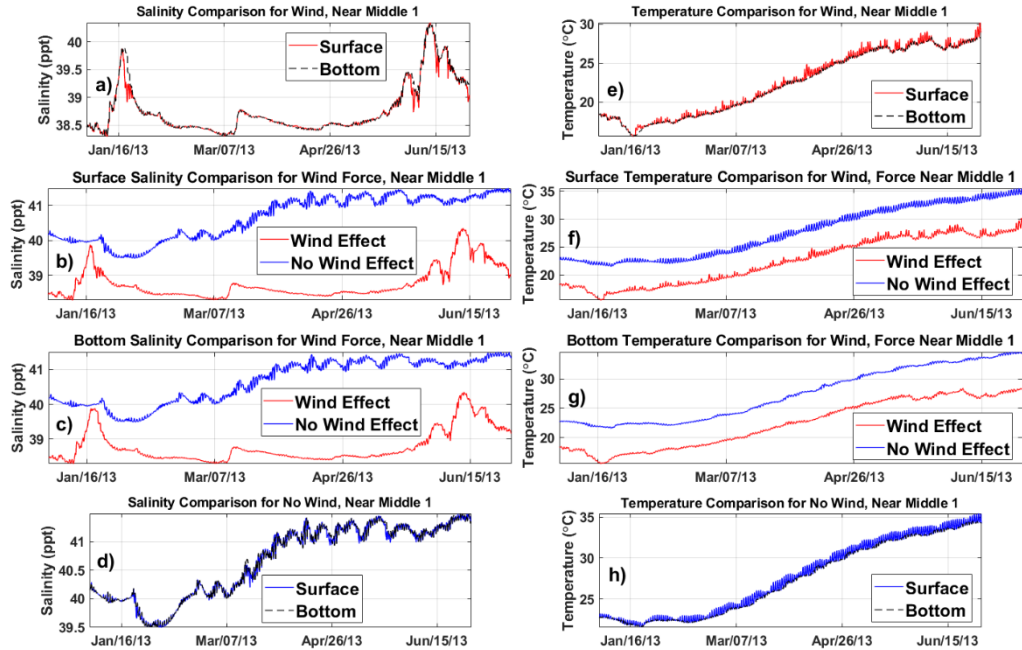


Figure 2.10 Comparisons of the salinity (ppt) and temperature ($^{\circ}\text{C}$) forced by the winds (m/s) nearshore of middle Gulf (MN1). Comparison of a) Surface and bottom salinity on winds, b) Surface salinity between on and off winds, c) Bottom salinity between on and off winds, d) Surface and bottom salinity off winds, Comparison of e) Surface and bottom temperature on winds, f) Surface temperature between on and off winds, g) Bottom temperature between on and off winds, h) Surface and bottom temperature off winds.

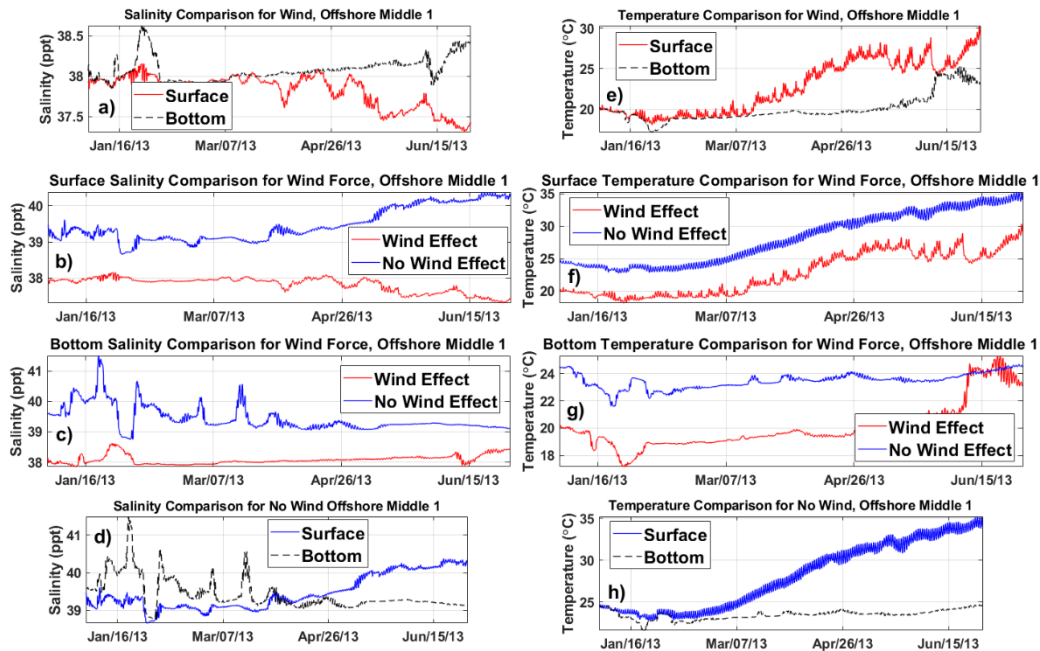


Figure 2.11 Comparisons of the salinity (ppt) and temperature ($^{\circ}\text{C}$) forced by the winds (m/s) offshore of middle Gulf (MO1). Comparison of a) Surface and bottom salinity on winds, b) Surface salinity between on and off winds, c) Bottom salinity between on and off winds, d) Surface and bottom salinity off winds, Comparison of e) Surface and bottom temperature on winds, f) Surface temperature between on and off winds, g) Bottom temperature between on and off winds, h) Surface and bottom temperature off winds.

the two cases. Figure 2.10 and 2.11 show the model results of salinity and temperature as affected by wind at MN1 and MO1 (locations shown in Figure 2.1). Higher levels of salinity and temperature are evident when the winds are excluded. Mean differences of 1 – 4 ppt in salinity and 5°C in temperature due to wind forcing are shown in Figure 2.10-b and 2.10-h. In the nearshore, the salinity and temperature are vertically homogeneous since the winds over the Gulf cause mixing in horizontal and vertical directions (Figure 2.10-a,e). In contrast, stratification is well developed at the offshore areas (Figure 2.11-a,e). Although the water depths of all selected observed points in Figure 2.1 were different, similar trends were obtained from the model results. Thus, the winds affect the sea-surface dynamics, allowing for mixing in horizontal and vertical directions. Vertical profiles of salinity and temperature showed homogeneity over the water depth in the nearshore areas. Furthermore, the seasonal characteristics of winds are reflected in the seasonal features of mixing.

2.5.3 Rivers

The four major rivers in the northern region of the Gulf affect the temperature, salinity and current field in the vicinity (Pokavanich et al., 2014). These rivers flow into the Gulf and show seasonal variation in flow rates, salinity and temperature. Changes in salinity in the north part of the Gulf are attributed to exchange between river flow and the Gulf waters. Figure 2.12 and 2.13 show the effects of four rivers discharge at nearshore and offshore locations in the northern Gulf. The salinity and temperature forced by river discharge show the homogeneous vertical structure at NN2. The differences in temperature appear negligible. The mean difference of salinity is 0.2 – 0.4 ppt, with a maximum difference of 2.5 ppt, likely due to the Shatt al Arab river discharge. The fresh water throughout the estuary in the northern Gulf affects the salinity,

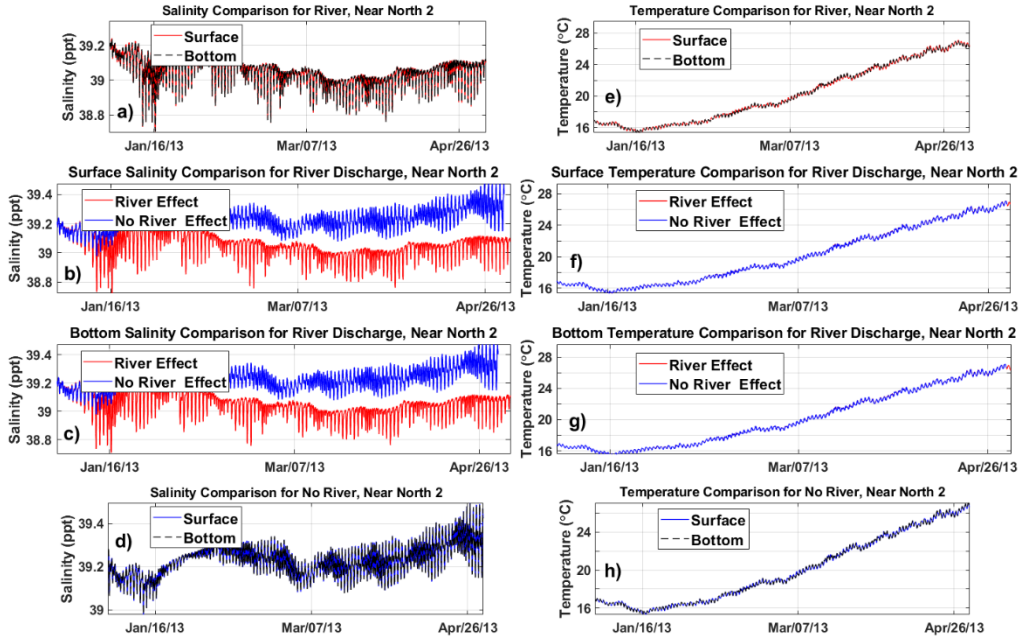


Figure 2.12 Comparisons of the salinity (ppt) and temperature (°C) forced by the rivers nearshore of northern Gulf (NN2). Comparison of a) Surface and bottom salinity on rivers, b) Surface salinity between on and off rivers, c) Bottom salinity between on and off rivers, d) Surface and bottom salinity off rivers, Comparison of e) Surface and bottom temperature on rivers, f) Surface temperature between on and off rivers, g) Bottom temperature between on and off rivers, h) Surface and bottom temperature off rivers.

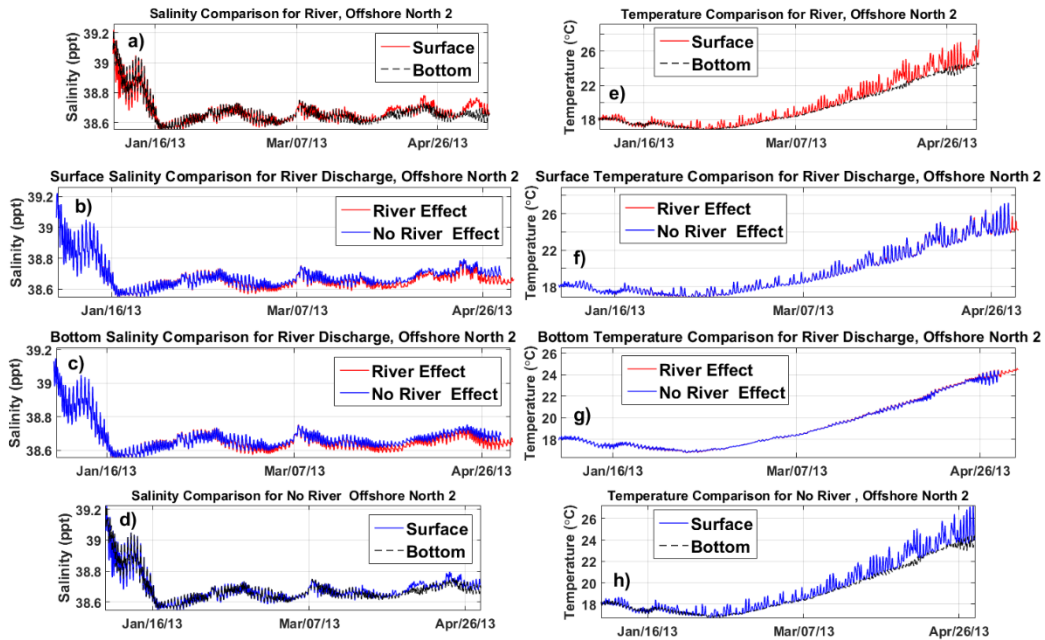


Figure 2.13 Comparisons of the salinity (ppt) and temperature (°C) forced by the rivers offshore of northern Gulf (NO2). Comparison of a) Surface and bottom salinity on rivers, b) Surface salinity between on and off rivers, c) Bottom salinity between on and off rivers, d) Surface and bottom salinity off rivers, Comparison of e) Surface and bottom temperature on rivers, f) Surface temperature between on and off rivers, g) Bottom temperature between on and off rivers, h) Surface and bottom temperature off rivers.

and its decrease since the middle of January (Figure 2.12b) appears to correspond with the increase of river flow rate during the spring months. The effect of river discharge, on the other hand, is limited to the northern Gulf. The transport from the Arabian Sea through the Strait of Hormuz strongly impacts hydrodynamic predictions in the southern and middle Gulf, and the effect of river outflow at these locations is minimal. Thus, the river discharge has an effect on the salinity changes in the nearshore region only in the northern Gulf, and is negligible on a large scale of the Gulf. The changes in river outflows due to the recent damming and river diversion projects (Al-Yamani, 2008) have the potential to cause an increase in salinity of the northern Gulf region. Reliable recent river discharge data will be required to completely ascertain this effect.

2.5.4 Results of Sensitivity Study

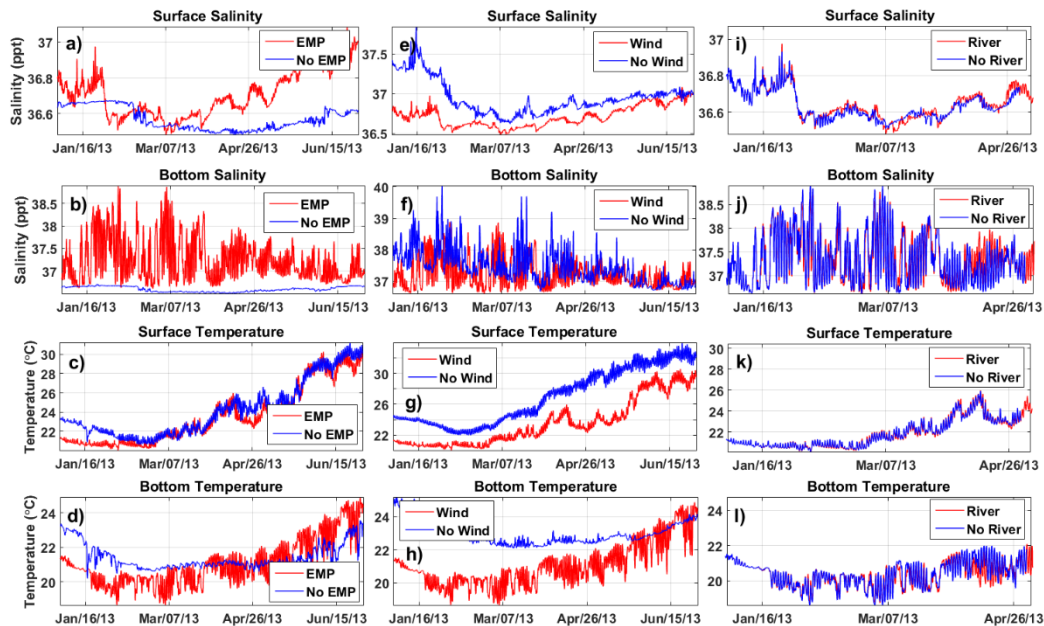


Figure 2.14 Comparisons of the salinity (ppt) and temperature (°C) at the Strait of Hormuz (H1). Comparison of a) Surface salinity by EMP, b) Bottom salinity by EMP c) Surface temperature by EMP, d) Bottom temperature by EMP, e) Surface salinity by winds, f) Bottom salinity by winds g) Surface temperature by winds, h) Bottom temperature by winds, i) Surface salinity by rivers, j) Bottom salinity by rivers k) Surface temperature by rivers, l) Bottom temperature by rivers.

Figure 2.14 shows the results of sensitivity study at the point H1, near the Strait of Hormuz. It is anticipated that the dynamics near the Strait of Hormuz are complex since currents and salinity gradients are strong over the deep and narrow channel. The effects of EMP are shown in Figure 2.14 a-d. The salinity shows high degrees of fluctuation at the bottom due to the inflows from the Indian Ocean; the inclusion of EMP shows even greater salinity levels at the bottom of the Strait. The temperature driven by EMP rate, however, is minutely different at the bottom layer. Consideration of the winds shows a reduction of salinity and temperature at H1 due to wind-driven mixing. This is shown in the Figure 2.14 e-h. The salinity and temperature at the Strait of Hormuz were unaffected by the rivers (Figure 2.14 i-l), due to the dominant dynamic force of water exchanges through the Strait and the distance to the rivers from the Strait.

Table 2.6 Sensitivity results of salinity and temperature for all selected nearshore output points (max-min).(N: North, M: Middle, S: South, O: Oman, H: Strait of Hormuz, Sf: Surface, Bt: Bottom)

Nearshore		Salinity (ppt) [Max-Min]				Temperature (°C) [Max-Min]			
		Model	EMP	Wind	River	Model	EMP	Wind	River
N1	Sf	39.3-38.5	36.1-35.8	42.0-39.7	39.5-39.1	30.6-15.8	29.7-16.0	35.3-19.4	27.0-15.8
	Bt	39.3-38.5	36.1-35.8	42.0-39.7	39.5-39.1	29.6-15.8	29.5-16.1	34.7-19.3	26.6-15.8
N2	Sf	39.3-38.7	36.5-35.2	41.7-39.7	39.5-39.0	30.0-15.3	29.9-15.5	35.0-19.0	27.1-15.3
	Bt	39.3-38.7	36.5-35.2	41.7-39.7	39.5-39.0	30.0-15.3	29.9-15.5	35.0-19.0	27.1-15.3
N3	Sf	38.2-37.4	36.7-36.3	39.0-37.8	38.0-37.7	27.9-17.7	28.9-17.3	35.2-22.5	26.1-17.8
	Bt	38.0-37.6	36.7-36.5	38.5-37.8	37.9-37.7	21.2-17.7	20.2-17.3	26.5-22.5	20.2-17.8
M1	Sf	40.3-38.3	36.9-36.7	41.5-39.5	39.9-38.3	30.2-15.6	30.9-15.7	35.5-21.5	26.7-15.6
	Bt	40.3-38.3	36.9-36.7	41.5-39.5	39.9-38.3	28.4-15.6	29.5-15.7	34.5-21.5	26.0-15.6
M2	Sf	41.9-38.4	37.2-36.7	45.9-41.0	42.0-38.4	30.6-16.0	31.1-15.9	35.8-20.6	27.1-16.0
	Bt	41.9-38.4	37.2-36.7	45.9-41.3	41.9-38.4	29.1-16.1	30.0-15.9	35.1-20.7	26.9-16.1
M3	Sf	37.7-37.1	36.6-36.6	38.4-37.4	37.7-37.1	31.4-19.5	29.6-19.6	35.2-23.0	26.5-19.5
	Bt	37.7-37.1	36.7-36.6	38.4-37.5	37.6-37.3	24.2-19.5	23.5-19.6	25.3-22.9	20.9-19.5
S1	Sf	43.1-40.5	37.2-37.0	47.7-42.7	43.1-41.3	30.5-16.5	31.3-17.1	35.1-21.0	27.9-16.5
	Bt	43.1-40.7	37.2-37.0	47.7-43.1	43.1-41.3	29.3-16.4	29.6-17.1	32.4-21.0	25.3-16.4
S2	Sf	43.2-40.4	37.1-36.9	45.8-44.0	43.2-40.5	30.6-15.5	30.7-15.7	35.7-19.7	27.9-15.5
	Bt	43.2-40.4	37.1-36.9	45.8-44.0	43.2-40.5	30.6-15.5	30.7-15.7	35.7-19.8	27.9-15.5
S3	Sf	40.2-38.6	37.0-36.8	41.4-38.6	40.2-39.0	31.6-16.9	31.4-16.6	35.1-21.5	27.9-16.9
	Bt	40.2-38.6	37.0-36.8	41.4-38.6	40.2-39.0	30.5-17.0	30.7-16.6	34.0-21.5	27.0-17.0
O1	Sf	37.0-36.5	36.7-36.5	37.4-36.5	37.0-36.5	29.8-20.1	30.5-20.5	32.4-21.6	26.6-20.0
	Bt	37.1-36.5	36.7-36.5	37.9-36.7	37.0-36.5	25.3-20.1	28.1-20.5	26.7-21.8	23.2-20.1
O2	Sf	36.8-36.4	36.8-36.4	36.9-36.4	36.7-36.4	30.4-20.7	30.2-21.0	30.3-21.7	27.1-20.7
	Bt	36.8-36.4	36.8-36.3	37.1-36.3	36.8-36.4	29.4-20.4	29.2-20.8	29.4-20.6	25.4-20.7
H1	Sf	37.1-36.5	36.7-36.5	37.8-36.6	36.9-36.5	30.6-20.0	31.2-20.6	33.9-22.0	25.9-20.0
	Bt	38.9-36.6	36.7-36.5	40.0-36.7	38.9-36.6	24.9-18.7	23.6-20.1	25.1-22.1	22.0-18.6
H2	Sf	37.1-36.4	36.7-36.4	37.8-36.3	37.1-36.4	29.8-20.7	30.0-20.3	30.0-21.3	26.3-20.3
	Bt	38.4-36.5	36.7-36.4	40.1-36.6	38.5-36.5	24.1-19.1	24.9-19.6	25.7-21.3	22.2-19.2

Table 2.7 Sensitivity results of salinity and temperature for all selected offshore output points (max-min)

Offshore		Salinity (ppt) [Max-Min]				Temperature (°C) [Max-Min]			
		Model	EMP	Wind	River	Model	EMP	Wind	River
N1	Sf	39.6-38.6	36.6-36.1	40.5-38.8	39.6-38.8	30.6-16.7	30.5-17.4	35.2-21.3	28.1-16.7
	Bt	39.6-38.9	36.7-36.4	41.3-38.6	39.6-38.9	27.0-16.8	24.3-17.5	30.4-20.8	22.9-16.8
N2	Sf	39.3-38.5	36.6-36.2	40.9-38.9	39.2-38.5	29.3-16.7	29.9-16.8	34.1-21.1	27.2-16.7
	Bt	39.2-38.6	36.6-36.3	41.1-39.1	39.2-38.6	27.6-16.8	26.9-16.8	33.0-21.1	24.4-16.8
N3	Sf	38.8-37.8	36.7-36.5	39.9-38.4	38.1-37.9	29.6-18.2	30.2-18.1	35.6-23.2	27.4-18.2
	Bt	38.1-37.9	36.7-36.6	39.1-38.4	38.1-37.9	20.5-18.2	20.6-18.0	24.6-23.1	20.5-18.2
M1	Sf	38.2-37.3	36.7-36.6	40.4-38.7	38.2-37.6	30.3-18.1	29.2-18.8	35.2-22.8	27.4-18.1
	Bt	38.6-37.9	36.7-36.6	41.5-38.7	38.6-37.9	25.3-17.2	23.9-18.6	24.7-21.6	20.2-17.2
M2	Sf	41.1-38.8	37.0-36.8	44.8-40.3	41.1-38.8	30.4-16.7	30.9-16.3	34.6-21.4	27.8-16.7
	Bt	41.6-39.0	37.0-36.8	45.5-40.7	41.6-39.5	28.6-17.0	29.5-16.3	33.4-21.8	25.6-17.0
M3	Sf	37.8-37.1	36.6-36.6	39.0-37.4	37.8-37.1	31.1-19.4	30.1-19.6	35.2-23.4	26.9-19.4
	Bt	38.2-37.6	36.7-36.6	38.9-38.3	38.1-37.6	20.9-18.9	21.7-19.3	24.7-23.1	20.9-19.0
S1	Sf	42.9-39.3	37.0-36.8	46.7-40.2	42.9-39.4	31.1-16.8	30.8-17.1	34.6-21.1	27.7-16.8
	Bt	42.9-41.0	37.0-36.9	47.3-42.3	42.9-41.0	29.1-17.2	28.6-17.1	31.3-21.5	24.4-17.2
S2	Sf	41.4-38.4	36.9-36.7	43.9-39.4	41.3-38.5	30.8-17.0	30.8-16.9	34.8-21.9	26.7-17.0
	Bt	41.4-38.4	36.9-36.7	43.9-40.0	41.3-38.5	29.7-17.0	29.7-16.9	33.8-21.9	26.3-17.0
S3	Sf	38.8-37.3	36.7-36.6	40.4-37.6	38.8-37.6	31.3-18.7	31.0-18.9	35.2-22.7	27.6-18.7
	Bt	39.0-38.0	36.7-36.7	41.9-39.0	39.0-37.9	27.2-18.0	24.7-18.3	25.0-22.7	20.9-17.9
O1	Sf	36.8-36.3	36.7-36.4	37.0-36.4	36.7-36.3	29.8-20.8	27.7-20.8	27.4-21.4	25.9-20.8
	Bt	38.4-36.3	36.7-36.3	40.2-36.3	38.2-36.3	23.8-19.2	25.8-19.9	25.4-20.0	21.9-19.3
O2	Sf	36.7-36.5	36.8-36.5	36.8-36.5	36.7-36.5	30.1-23.0	29.9-21.4	30.0-21.3	26.1-23.1
	Bt	36.7-36.3	36.7-36.3	36.7-36.3	36.6-36.3	21.6-19.5	24.9-19.3	22.4-19.3	20.9-19.6

Tables 2.6 and 2.7 provide a summary of the sensitivity results for all selected output points at the nearshore and offshore regions, respectively.

2.6 Spatial Variability

Figure 2.15 shows comparisons of salinity and temperature between the western and eastern sides for the nearshore area. Overall, higher levels of salinity and temperature are seen on the western side, due to a combined effect of bathymetry, counterclockwise Gulf circulation and inflows from the Strait of Hormuz. The eastern side may exhibit reduced effects of EMP rates and winds than the western side because of topographic features affecting wind flow (Giannakopoulou and Toumi, 2012). In contrast, the temperatures of both sides show similar levels at the surface and bottom in Figure 2.15-f. It can be attributed to the dominant force of

strengthened inflows in late spring and summer from the Strait of Hormuz (Kämpf and Sadrinassab, 2006). In addition, the seasonal characteristics of the vertical structure along a cross section down the long axis of the Gulf (as shown in Figure 2.1, solid line) were obtained from

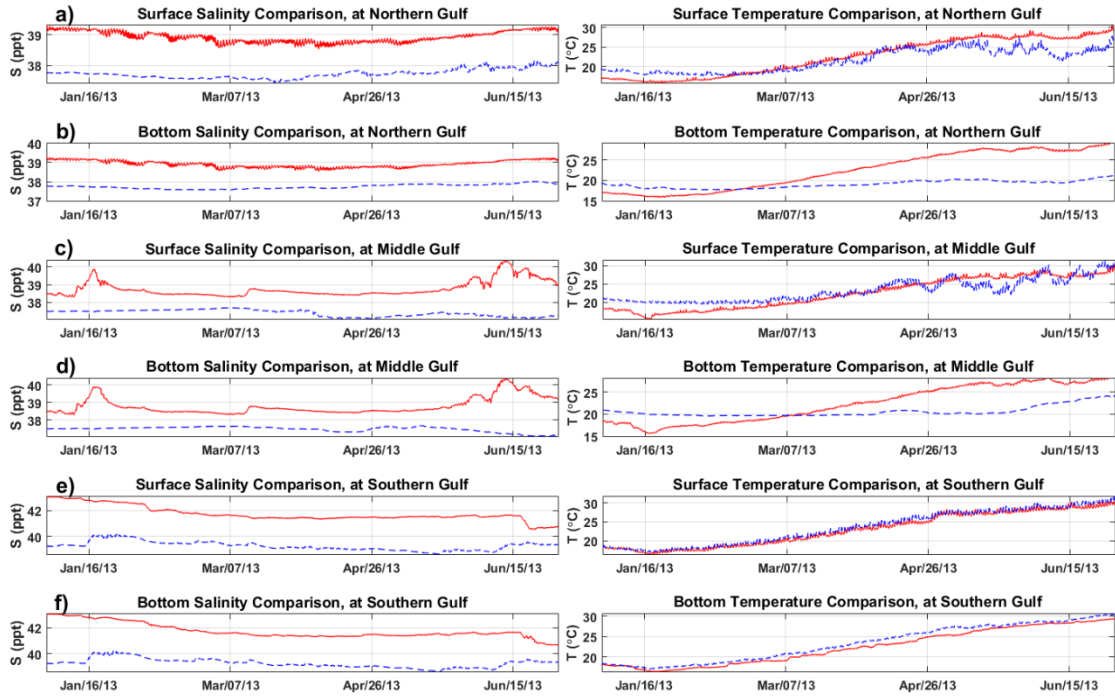


Figure 2.15 Comparisons of the salinity (ppt) and temperature (°C) between the western (in red) and eastern (in blue) Gulf. Comparison of salinity and temperature; a) At the surface of points NN1(W)-NN3(E) in northern Gulf, b) At the bottom of points NN1(W)-NN3(E) in northern Gulf, c) At the surface of points MN1(W)-MN3(E) in middle Gulf, d) At the bottom of points MN1(W)-MN3(E) in middle Gulf, e) At the surface of points SN1(W)-SN3(E) in southern Gulf, f) At the bottom of points SN1(W)-SN3(E) in southern Gulf (All reference locations show in Figure 2.1).

the model results; this is shown in Figure 2.16. In summer, strong vertical stratification of temperature is formed over the entire Gulf, due to the intensive solar heat at the surface and a relatively-reduced *Shamal* wind. In addition, one or two homogeneous layers of salinity and temperature were persistently exhibited at the nearshore shallow region (left side of Figure 2.16 a-b), whereas the low levels of salinity were distributed and partially well mixed at the offshore regions. With a combination of the winds and high evaporation rate, these lead to vertical homogeneity of salinity in local regions during the summer. In contrast, the vertical structures of

salinity and temperature are reduced (Figure 2.16 c-d) by the strong winds and other climatological conditions during the winter. In particular, the high velocities and cold air of the winter *Shamal*, in combination with the arid climate, lead to the occurrence of strong cooling in the water column (Reynolds, 1993).

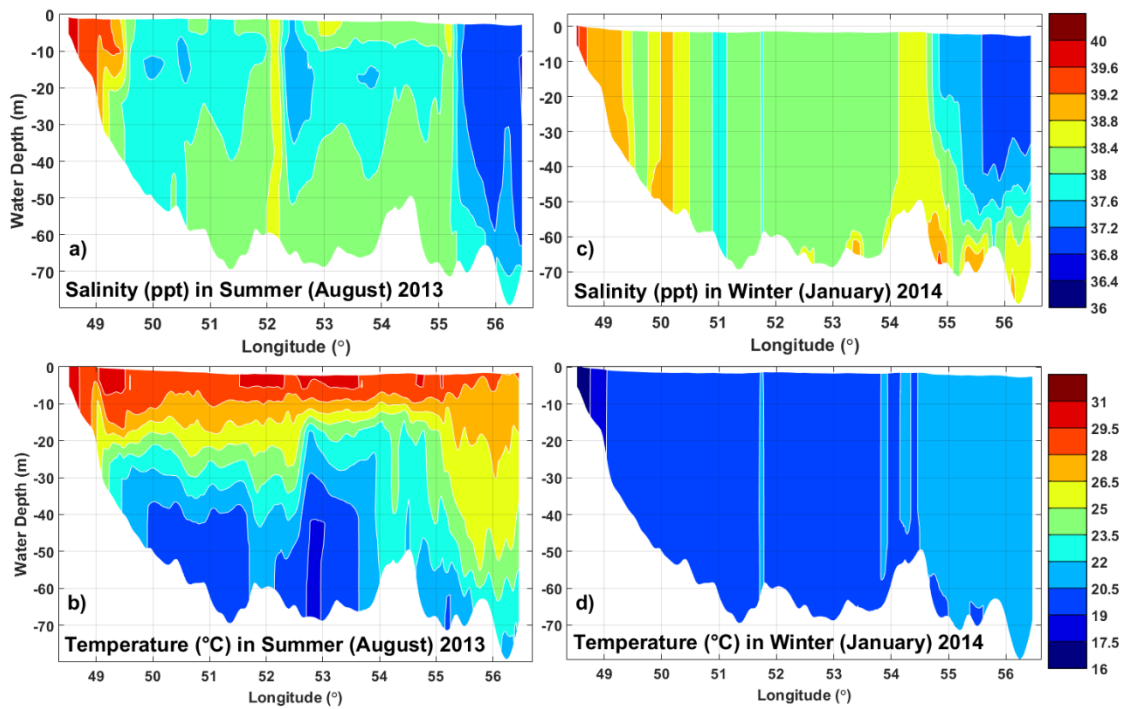


Figure 2.16 Vertical profiles of salinity (ppt) and temperature (°C) in summer and winter along the cross-section axis [48.52°, 29.73°; 51.79°, 26.74°; 54.24°, 25.65°; 56.46°, 26.66°; 56.46°, 26.66°, as shown in Figure 2.1, solid line]. a) Salinity in summer, b) Temperature in summer, c) Salinity in winter, d) Temperature in winter.

2.7 Conclusion and Discussion

We have described a modeling study of the hydrodynamic features forced by winds, tides, heat-flux and climatological conditions in the Gulf, using the Delft3D-FLOW model. Unlike prior work (Kämpf and Sadrinasab 2006; Elhakeem et al., 2015; etc.) which used uniform or averaged winds and transport boundary conditions at the open sea boundary with relatively coarse spatial resolution, this study used spatially and temporally varying winds and forcing

conditions (such as three-dimensional, temporally varying transport boundary conditions, and space and time-varying input winds and pressure) to force a highly-resolved modeling system. In addition, Pous et al. (2004) suggested that there is a strong depth variation in the current field at the entrance of the Strait of Hormuz due to the water mass exchange, regional circulation in the Gulf of Oman and thermohaline process. The time- and depth-varying transport conditions at the open inflow boundaries would also account for the variability of the physical parameters along the open boundary. As such, it was felt that this was more representative of actual conditions present in the region. Additionally, we were able to validate the model at finer time scales (hourly) than Elhakeem et al. (2015), who used averaged data from the Mt.Mitchell experiment (Reynolds, 1993) and MOODS (Master Oceanographic Observations Data Set, Alessi et al., 1999). Using the refined index (Wilmott et al., 2012) to better quantify the model performance, the model results show good agreement to measurements of temperature, currents and input winds. Moreover, a sensitivity study of this modeling system has been performed to investigate the significant factors forcing the hydrodynamic features in the Gulf. Variability of salinity in the entire Gulf was strongly affected by evaporation and precipitation rates, producing high levels of salinity in summer relative to winter. This was driven by the dominant evaporation rate during the summer, as shown in Table 2.3. The region around the UAE in southern Gulf, in particular, shows high levels of salinity due to the combination of high evaporation and shallow water depth. The wind is also major influence on the hydrodynamic features in the Gulf. The strong *Shamal* events induced dynamic interactions at the surface (Ali, 1994), and generated lateral and vertical mixing of salinity and temperature, and is further associated with physical transport of hydrodynamic process, contributing to convective heating and cooling system. The prevailing northwesterly winds, as shown in Figure 2.3, acts as a persistent force on the Gulf

environment. The model has uncovered interesting hydrodynamic features, driven by winds. Lastly, river discharge, a source of fresh water, is more pronounced and maximized when snow melts in the Zagros Mountains in late spring. Not surprisingly, it affects the salinity changes near the river estuary primarily in the northern Gulf. In summary, the model was able to reproduce the general hydrodynamic features in the Gulf, as has been validated by comparison to the available observations.

Furthermore, the impact of climate change has the potential to directly affect the ocean circulation and environment in the Gulf region, due to the strong dependence on wind and heat flux. Due to the climate change, the *Shamal* variability associated with an effect on cold fronts and movement of low- and high-pressure systems in the Gulf (Thoppil and Hogan, 2010b) will have a different forcing on water surface and water column over depth. In addition, water desalination plants, the major source of fresh water in the region in Gulf countries (IDA, 2007), are discharging high saline water back into the ocean (Roberts et al., 2010). To ascertain the environmental aspects from anomalous climate change and human use, these physical parameters can be incorporated into numerical simulations. Future applications include appropriate application to human use, extreme weather and climate change using this hydrodynamic modeling system.

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CHAPTER III

MODEL PREDICTION: DESALINATION PROCESS*

According to the IDA 2000 Worldwide Desalting Plants Inventory Report (No.16) (Wangnick, 2000), there are 133 countries in the world which have used desalination for the majority of their water demands since December 31, 1999. A total of 13,600 desalination plants are operational and additional plants are under construction worldwide. At present, the Arabian/Persian Gulf countries are the biggest users of seawater desalination, with over 50% of the world's installed capacity (Awerbuch, 1998). The rapid growth of population and industry from the abundant gas and oil energy motivated the development of desalination process in the Gulf. However, there are numerous environmental concerns which can destroy the ecosystem at or near the point of discharge of system (von Medeazza, 2005; Lattemann and Hopner, 2008), and introduce the negative impacts by chemicals during processing (Hopner and Windelberg, 1997). Due to the effects of climate change, the desalination has the potential to grow tremendously over the next decades, as alternative water sources. Thus, it is essential to evaluate the environmental effects of desalination process. This chapter outlines a study concerning how desalination affects the ocean environment in the Gulf, using the validated Delft3D model (in Chapter II).

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3.1 Introduction

Desalination is the removal process of salt and other minerals from seawater and brackish water to create potable water for human consumption as well as for agricultural and industrial uses (Elimelech and Phillip, 2011). According to the MENA (Middle East and North Africa) regional water outlook (Verdier et al., 2011), approximately 2,800 desalination plants produce 27 Mm³/day of fresh water in the MENA region. Desalination is used in 133 countries and a total of 13,600 plants have either been installed or planned since 2000, based on the IDA 2000 Worldwide Desalting Plants Inventory Report (No. 16, Wangnick, 2000). Hopner (1999) and Schiffler (2004) have pointed out the need to engage in long-term planning and management for desalination process. Desalination has increased in the wake of rapid industrialization, along with production associated with the vast crude oil and gas reserves in the Gulf (Al-Faris, 2002). As the establishment of the petrochemical industry in the Gulf region has increased the standard of living and population in each Gulf country for decades (UN, 2017), this growth also causes high water demand. The desalination process provides a dependable solution to supply fresh water in the Gulf region. The arid climate in the Gulf also promotes the need of the water (Al Barwani and Purnama, 2008). The growth of desalination process is presently ongoing and will be further extended in terms of capacity (GWI, 2010).

While, desalination technology has no doubt aided in the development of the Gulf countries, there are marine and environmental concerns. Intake and outfall processes of desalination have a potential to deteriorate the marine ecosystem (Cooley et al., 2006). The high saline concentrate and temperature of brine mixture suggest a negative impact to the ambient ocean surrounding the plant (Dupavillon and Gillanders, 2009). The recent works have illustrated near field predictions of brine discharge that the desalination can lead to environmental impacts.

The environmental cost of seawater desalination in the Gulf was evaluated by Purnama et al. (2005). They found that higher salinity seawater could reduce the plant's recovery ratio and increase the cost of desalination water. Bleninger (2006) discussed the effects of the contaminant mass flux using the hydrodynamic model, Delft3D linked with CORMIX (COrnell MIXing zone expert system) and examined coastal water quality problems regarding energy consumption and land use (Bleninger and Jirka, 2010). Lattemann and Hopner (2008) evaluated the overview of outfall discharge with two different type of desalination process (Reverse Osmosis, and Multi Stage Flash), and discussed the potential impacts of desalination process on the salinity of the Gulf using a mathematical model (Al Barwani and Purnama, 2008). Rodrigo et al. (2011) described study of mixing processes by hyper saline discharge with the physical model. The salinity variations due to the desalination process were evaluated by using the collected data (Uddin, 2014) and allowed for a hypothesis that increased salinity is able to destroy the ecosystem in the northern Gulf. Mickley (1995) also provided the increases of salinity and temperature, 15% and 5-15 °C respectively higher than ambient seawater conditions. In addition, there are various studies about salinity increase due to the desalination; Purnama et al. (2005) have suggested salinity increase of the order of 0.06 ppt, due to desalination plant (Al Jubail in Saudi Arabia); often high 2 ppt and above (Verdier et al., 2011); 2 ppt increase at Canary Island desalination (Talavera and Ruiz, 2001), the highest salinity increase of 4 ppt from various outlets in Florida as compared with background salinity (Einav et al., 2002) and increase about 0.005~0.01 ppt (Dawoud and Al Mulla, 2012) at a vicinity of desalination plants. Recently, a similar Gulf study using the DELFT3D-FLOW model for the northern Gulf region was conducted by Alosari and Pokavanich (2017). They investigated the seasonal hydrodynamic features of the northern Gulf. The discharge from four rivers and five desalination plants with

constant outfall rates were applied to the model; these inputs led to local effects of about a 2 ppt increase in salinity and 3 °C in temperature due to desalination discharge. Thus, these can affect the security of water supplies in the Gulf area as well as the environmental and economic aspects (Sheppard et al., 2010).

In Chapter III, this study uses the validated model (as described in Chapter II), incorporating spatially and temporally detailed information, such as transport boundary, various oceanographical and meteorological conditions of the Gulf region over a finer grid. In addition to discharge from the four major rivers, all available data of desalination process in the Gulf area which are specified as a time series, were applied to the modeling system and the parameterization of in-out desalination processes was used to properly simulate the desalination process.

The Gulf has unique meteorological and oceanographic processes which respond directly to climate change (IPCC Fifth Assessment Report, 2014). These changes can have significant impacts on predictions and evaluations of the model results driven by desalination, and additional modeling studies will investigate the effects of climate change with future desalination process. These serve as motivation to investigate the environmental effects from the brine discharge of desalination in this study. It can be also useful for prospective study to obtain the effects of global climate change and future desalination process in the Gulf region.

3.2 General Background of Desalination Process in the Gulf

3.2.1 Desalination Process in the Gulf

Desalination is a significant source of potable water to the Gulf region. It is not yet clear what the environmental effects are of increased brine discharge to the Gulf, as reliance on mass

exchange through the Strait of Hormuz may be insufficient for necessary levels of flushing (Nadim et al., 2008). In addition, the cost of desalination can rise sharply as the Gulf's salinity also rises (Abdul Azis et al., 2000; Dore, 2005). At present, the Gulf countries are the biggest users of seawater desalination, with over 50% of the world's installed capacity (Awerbuch, 1998). The rapid growth of population and industry from the abundant gas and oil energy motivated the development of desalination processes in the Gulf. However, there are numerous environmental concerns which can harm the ecosystem at or near the point of discharge of the system (von Medeazza, 2005), and introduce negative impacts by chemicals during processing (Hopner and Windelberg, 1997). Immerzeel et al. (2011) suggest that the resources of natural surface and groundwater in MENA region will be significantly reduced on future availability due to the effect of climate change. This is an indication that desalination has the potential to grow tremendously in production over the next decades, as alternative water sources are sought (Hashim and Hajjaj, 2002). Thus, it is necessary to evaluate the environmental effects of desalination processes.

3.2.2 Environmental Issues of Desalination

There are two primary aspects to leading the environmental effects of desalination in the Gulf. The first is the intake water system. The seawater desalination process takes open water directly from the sea via pipes (Lattemann and Hopner, 2008). The strong water suction causes high risk of impingement on intake structure by fish and other animals. Most species do not survive in a passage through a desalination process, and the small organisms and impurities are enough to pass through the membrane-screen, flowing into the plants' system and significantly deteriorating the feed water quality (Cooley et al., 2006). A proper criterion, normally smaller

intake-velocities than 0.1 m/s (Lattemann, 2010) is applied to avoid this issue, but it is still exposed to the risk on environmental problems. On the other hand, the outfall system is most significant area of environmental concerns for brine management of desalination process. A brine discharge is often a mixture of saline concentration with thermal and chemical pollution (von Medeazza, 2005). The high saline output effluent is directly discharged into the sea, and sometimes combined with cooling water of power plants. Despite the fact that the cooling water is more desirable solution to mitigate the impact of desalination, it can amplify the negative effects on nearshore, entire Gulf environment and the marine ecosystem. Al Barwani and Purnama (2008) have discussed the impact of desalination plants, depending exponentially on the plants' location and production rate. However, brine outfall systems are often not optimally placed (Bleninger and Jirka, 2010), and effluent recirculation back to the intake is possible, so that the larger capacity of plants may produce the low quality of water and reduce the system efficiency. Uddin (2014) has discussed the environmental impact of desalination, with increased salinity of 0.06 ppt at Al-Jubail in Saudi Arabia.

3.3 Modeling of Desalination Process

3.3.1 Model Description

The validated model (as described in Chapter II) is employed to investigate the environmental effects of seawater desalination in the Gulf. It is the hydrodynamic model Delft3D-FLOW (Deltares, 2011), with three-dimensional, temporally varying boundary conditions, and space and time varying input winds and pressure, using the finer grid resolutions of modeling system. In addition, the seasonal discharges of four major rivers in the northern Gulf region and the available data of seawater desalination over the Gulf were applied to the model.

The model run that desalination were deactivated (denoted as the case “Off Desalination”) has been performed to examine the effect of desalination process in the Gulf.

3.3.2 Desalination Process in the Model

Desalination has been developed with various technologies, and is still the subject of significant ongoing research. Three different technologies, the MSF (Multi-Stage Flash), MED (Multi-Effect Distillation) and RO (Reverse Osmosis), account for 63%, 16% and 21% of all desalination operations, respectively (Lattemann et al., 2013) and are most dominant processes in the Gulf. The strategy of this study is to employ the validated model (in Chapter II) and investigate the influx-efflux (or “in-out”) water cycle of desalination process for three different types of desalination technology. The modeling system of desalination process is based on the several assumptions in this work.

There are some issues for incorporating in-out discharge system in the Delft3D FLOW model, which compel us to use the following assumptions:

First, information on in-out plant’s discharge points is scarce. While the actual locations of the intake and discharge points depend on geological conditions and system efficiency (Bleninger and Jirka, 2010), it is likely that the distance between these two points is not less than 2-3 km. Due to the grid resolution, it is assumed that the in-out points are at the same grid point in the model.

Second, it is unclear when the plants open and close the water gate at the in-out discharge point. Thus, it is assumed that the plants are continuously operating during the simulation time period.

Third, it is also difficult to define the ambient water conditions in the vicinity of the intake points because desalination data, such as the salinity, temperature and flow rate of in-out discharge, are very scarce. Although the “Off Desalination” model run can help the guidance for initial conditions of ambient water, it is not useful to estimate the subsequent ambient conditions from the intake points, as these ambient conditions are likely affected by the effluent of desalination discharge. In contrast, the high saline water at the outfall discharge must be specified according to values of salinity, temperature and flow rates of intake water characteristics. The relationship (as shown in Table 3.1, Elhakeem, 2014) of increases in salinity and temperature at discharge can be used to consider the salinity and temperature of outfall effluent. However, the estimation the ambient water characteristics near intake point, such as salinity and temperature, is still needed to properly simulate the in-out discharge process. To cope with this issue, we estimate the water characteristics of salinity and temperature for intake water as a series of month-by-month model runs. The monthly mean intake water characteristics were assumed to be a source of desalination process. This approximate method led to the averaged conditions of ambient water at the intake point.

Lastly, the discharge of each of these plants is designated in a distributed vertical layer in the model. This is done according to the tendencies of the MSF and MED plants with the positive (from the surface) buoyant plumes, and the RO plant with negative (from the bottom) buoyant plumes (Bleninger et al., 2010) By specifying the σ -layer number of discharge point in the water column, the concentrations with the discharge rate are released to the near-field environment. Based on the type of plant, the vertical location of the discharge point is specified via the σ -layer number of the vertical grid.

Table 3.1 Increase of salinity and temperature at the discharge (Elhakeem, 2014).

Type	Increase of salinity (ppt) to ambient condition	Increase of temperature (°C) to ambient condition
MSF	10	10
MED	15	10
RO	44.8	1

A simple model has been tested to obtain rapid and useful predictions of effects of desalination discharge in the Gulf, and then developed the model to investigate the environmental effects and hydrodynamic features due to the brine discharge, using the available data of desalination for the Gulf region.

3.4 Simplified Model Test (During 2009-2013)

3.4.1 Simplified Model of Desalination

A simple approach to incorporate the discharge processes of 12 desalination plants was attempted with the validated model (as described in Chapter II). Input conditions of these

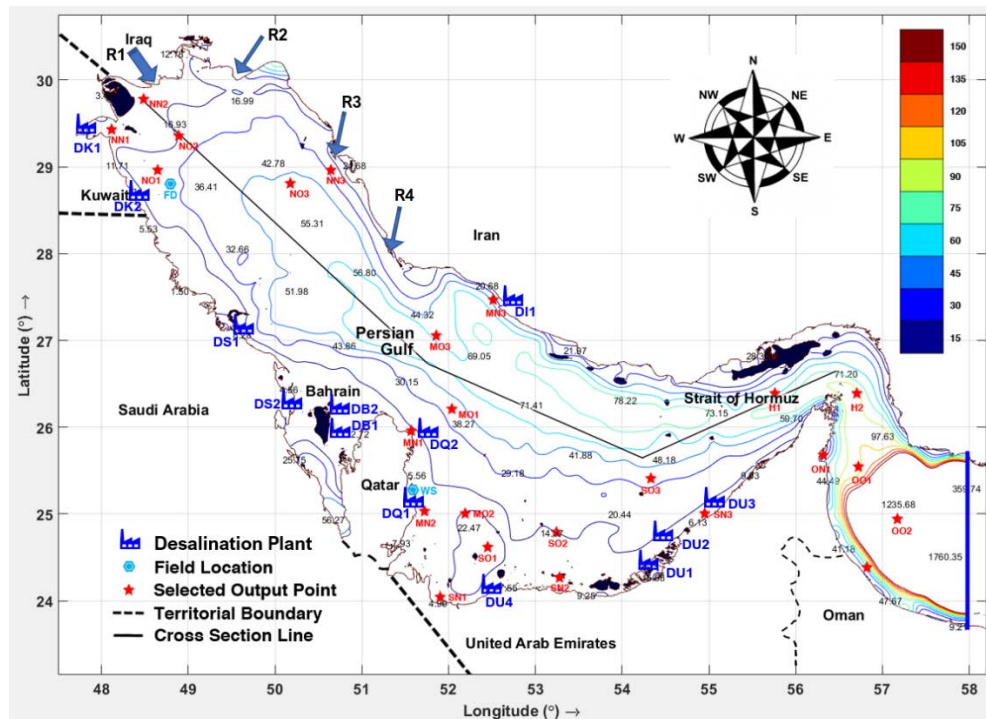


Figure 3.1 Location map of desalination plants in the Gulf with the bathymetry.

selected desalination plants in this model test, such as flowrate, salinity and temperature, were set to a constant arbitrary amount to represent the analysis-case scenario for outfalls during the five year time span of the simulation. Table 3.2 shows the 12 major desalination plants selected, including assumed uniform flow rates, salinity (56 ppt) for each plant, and temperature variation with a maximum of 32 °C in July and a minimum of 16 °C in December. The goal of this model test is to examine the results of variations in salinity and temperature due to the high saline plants' outfalls as an analysis-case scenario. In addition to desalination discharge, the four major river inflows shown in Figure 3.1, were applied to the modeling system. All input and boundary conditions in the validated model (as described in Chapter II) were also employed in this model test, and additionally, model run without desalination (denoted as the case “Off Desalination”) has been performed to serve as a baseline to examine the effect of the desalination process in the Gulf.

Table 3.2 Input conditions of 12 desalination plants in simple model study.

No.	Country	Location	Plant (Type)	Fresh Water (m ³ /s)	Discharge (m ³ /s)	Salinity (ppt-out)
1	Kuwait	DK1	Al-Doha (MSF)	5	25	56
2	Kuwait	DK2	Azour-S (MSF)	7	25	56
3	Saudi Arabia	DS1	Jubail (MSF)	20	50	56
4	Saudi Arabia	DS2	Khafji (MSF)	2	38	56
5	Bahrain	DB1	Sitra (MSF)	1.7	4.8	56
6	Bahrain	DB2	Alhidd (MED)	1.3	6.5	56
7	Qatar	DQ1	Ras Funats (MSF)	7	28	56
8	Qatar	DQ2	Ras Lafan (MED)	3	25	56
9	UAE	DU1	UmmAlNar (MSF)	7	33	56
10	UAE	DU2	Tawila (MSF)	10	35	56
11	UAE	DU3	JabalAli (MSF)	13	65	56
12	UAE	DU4	Shuwaihat (MSF)	23	32	56

3.4.2 Results of the Simplified Model Test

A total of 12 desalination plants with significant capacity in the Gulf are used in the simplified model test, as shown in Figure 3.1. Table 3.3 shows the mean salinity and temperature

Table 3.3 Results of simplified model: Mean salinity (ppt) and temperature (°C) during 2009-2013 (Nor: N, M: Middle, S: South, N: Nearshore, O:Offshore, On: active desalination, Off: de-active desalination).

Location	Surface Salinity		Bottom Salinity		Surface Temperature		Bottom Temperature	
	Off	On	Off	On	Off	On	Off	On
NN1	39.20	39.24	39.20	39.24	24.00	24.00	23.91	23.91
NO1	39.16	39.19	39.16	39.19	24.07	24.07	23.93	23.93
MN1	39.19	39.28	39.21	39.33	24.26	24.31	24.14	24.20
MO1	38.07	38.08	38.35	38.37	24.64	24.63	22.35	22.39
SN1	40.81	40.97	40.81	40.97	24.53	24.54	24.40	24.41
SO1	40.86	41.05	40.86	41.05	24.54	24.55	24.50	24.52

of simplified model during times of test-simulation, compared with the results of the case “Off Desalination”. The results of salinity and temperature during the desalination process were compared to the case without desalination process, as shown in Figure 3.2 and 3.3.

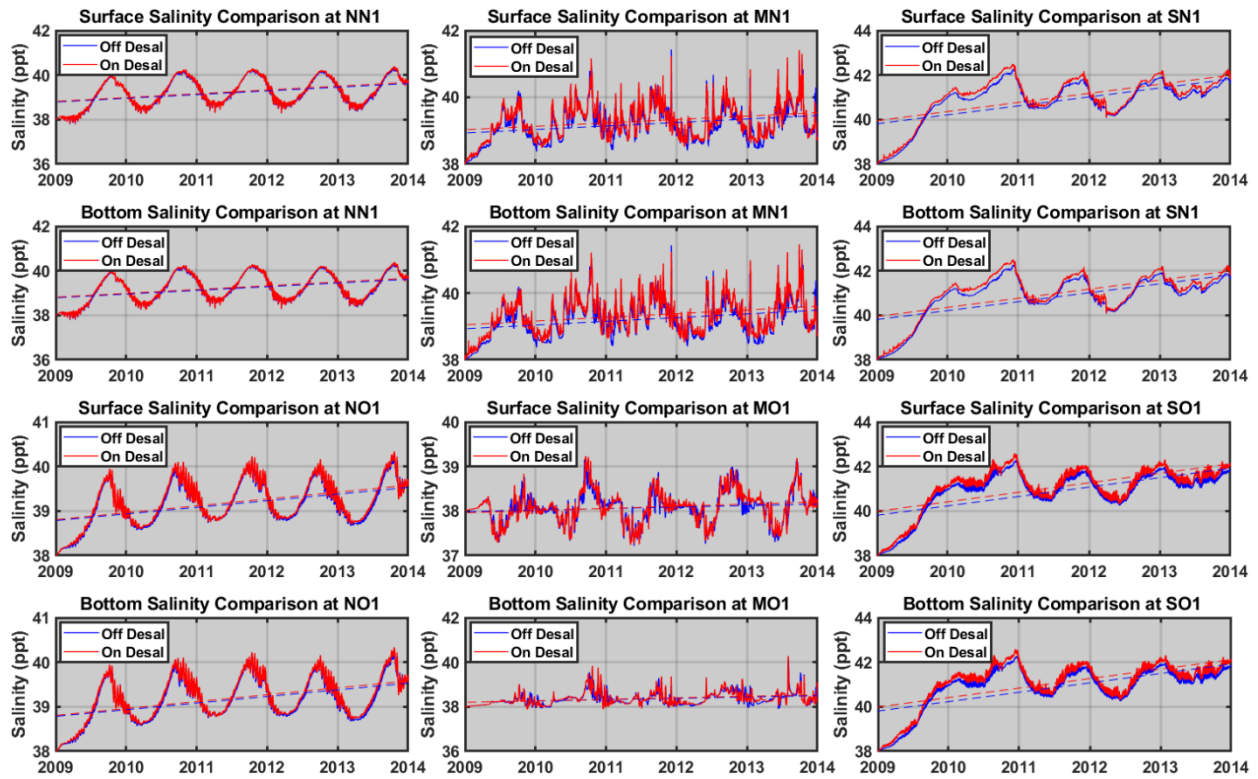


Figure 3.2 Comparisons of salinity (ppt) results of simplified model at the six different locations; near north (NN1), near middle (MN1), near South (SN1), off north (NO1), off middle (MO1), off south (SO1) in Figure 3.1.

At the nearshore, the significant differences of temperature were not obtained from the effect of desalinations, but the salinity increase due to the desalination were apparently shown with the

linear curve fit in Figure 3.2. Similar results were obtained in the offshore area. There are different levels of temperature between the surface and bottom along the water-depth, but no desalination effect on the temperature field was shown offshore area. Smaller increases of salinity from the desalination were seen at the offshore compared to the nearshore area. Although the salinity and temperature of only six locations were compared, spatial and temporal variations of surface salinity and temperature were attributable to the combined effect of winds, currents, bathymetry profile (gradient) and the desalination process.

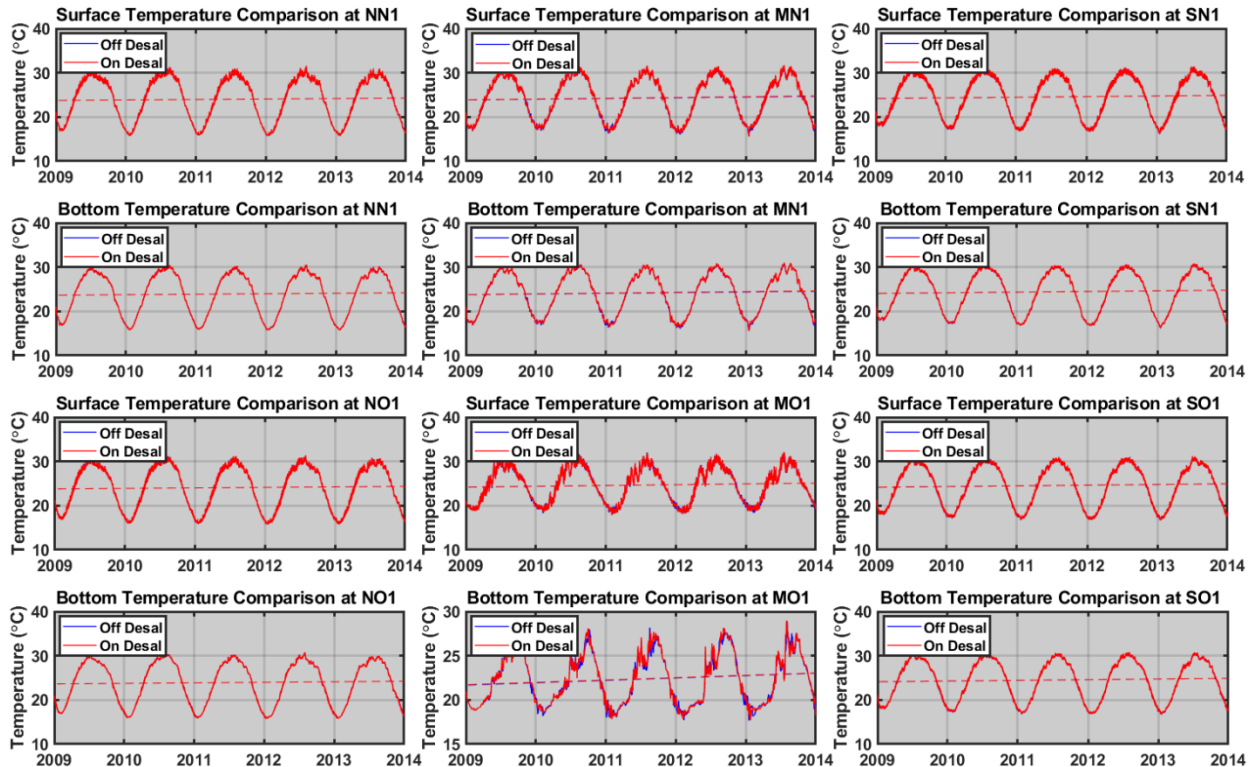


Figure 3.3 Comparisons of temperature (°C) results of simplified model at the six different locations.

Figures 3.4 and 3.5 show the monthly variations of surface salinity/temperature differences caused by desalination of simplified model, respectively. The seasonal standard deviation was estimated to compare the degree of variability in the salinity/temperature differences over the Gulf. In winter (Jan-Mar and Nov-Dec), the Gulf shows dynamic variations of surface salinity

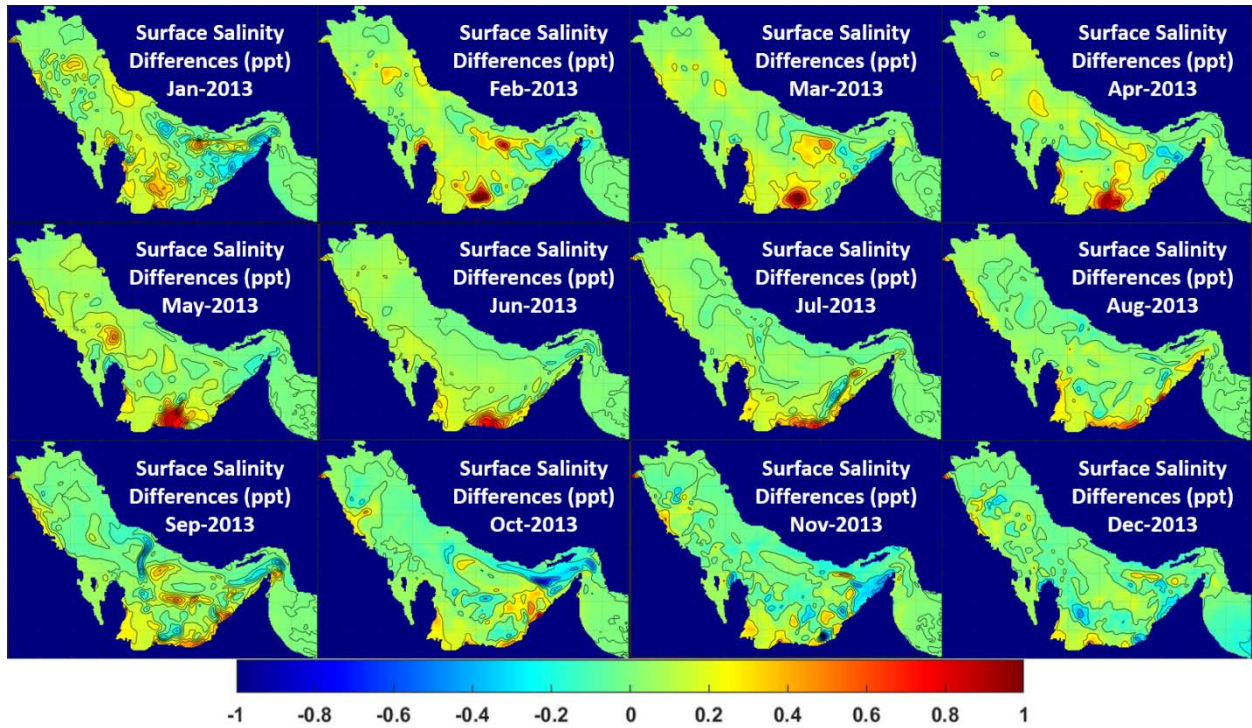


Figure 3.4 Monthly mean variations of salinity (ppt) differences by the desalination process (in 2013).

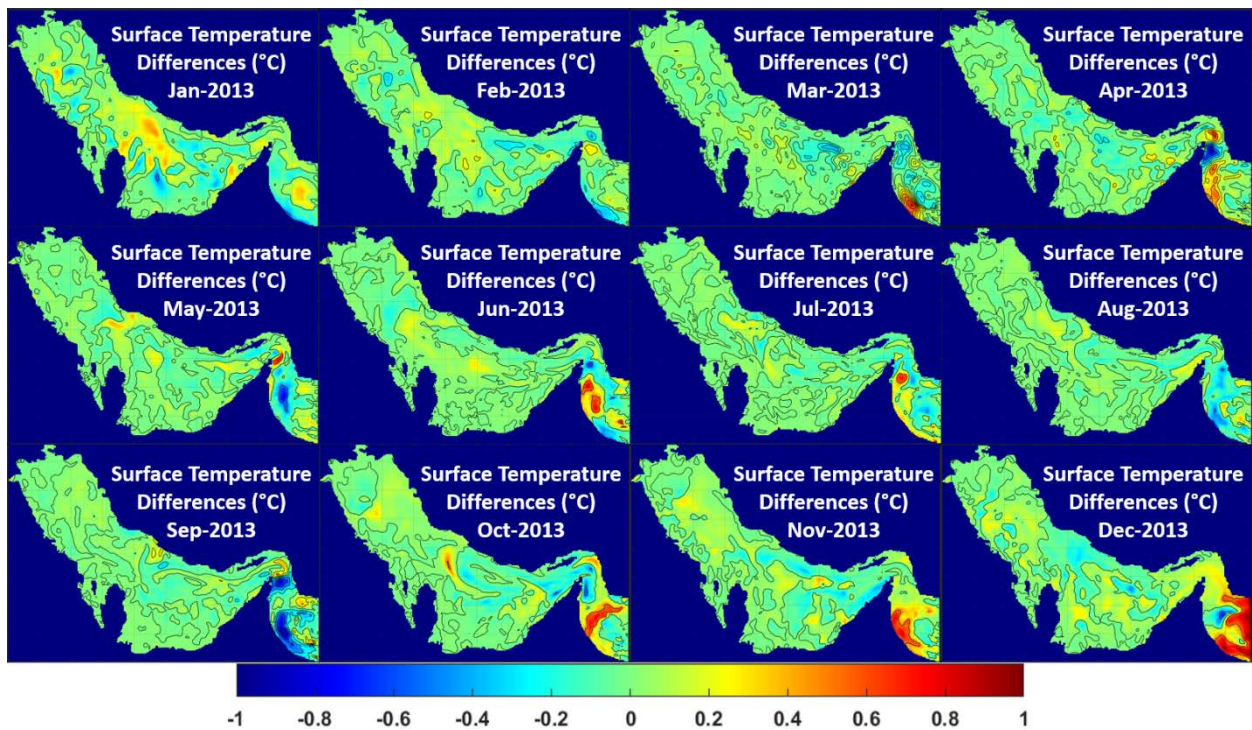


Figure 3.5 Monthly mean variations of temperature (°C) differences by the desalination process (in 2013).

and temperature. This is attributed to the northerly and northwesterly strong wind, the Gulf circulation and desalination process. The mean standard deviation of surface salinity in winter is the highest of about 0.11 compared to other seasons (as shown in Table 3.4), and both salinity increase and decrease, driven by desalination were apparently shown throughout the Gulf. The increased levels of salinity were distributed near southern Qatar, Bahrain and Kuwait Bay, likely due to weaker Gulf circulation in these areas.

Table 3.4 Seasonal mean standard deviation of surface salinity and temperature from the simplified model in 2013.

	Winter	Spring	Summer	Fall
Salinity	0.111	0.100	0.081	0.107
Temperature	0.179	0.208	0.284	0.311

The Iranian coast shows relatively little salinity increase in the winter time. The variations of salinity by the desalination process have been changed $\pm 1\sim 2$ ppt in winter. While, the surface temperature in winter (2013) indicated the low level of mean standard deviation. Despite this, the variations of surface temperature show the dynamic changes from north to south in Figure 3.5, likely due to the strong wind effect. In spring (Apr-May), the dynamic patterns shown in winter have decreased their tendency with the weakened *Shamal* season. The relatively lower spring salinity in the Iranian coast was attributed to the huge amount of inflows from the Indian Ocean. The lower difference of salinity is shown in the Strait of Hormuz, and the effect of inflows moves to the UAE area and upper Iranian coast (Reynolds, 1993). There is a similar tendency in temperature variations with the reduced wind events outside of *Shamal* periods. The high levels of temperature variation were distributed due to the strengthened inflows in late spring and summer and steep depth-gradient in the Gulf of Oman (Kämpf and Sadrinasab, 2006). The high evaporation and heat energy have led to warm temperatures in summer time (Jun-Aug). The nearshore areas from desalination along the Gulf coast might show high variations of salinity by

the high saline discharge from desalination. The high peak of inflows causes negative variations of salinity in the middle Gulf and Iranian coast during the summer. Lastly, the surface water in the Gulf has become colder, influenced by evaporative cooling process and decreasing air temperature (John et al., 1990) in the fall (Sep-Oct). In fall, the variations of surface temperature by the desalination were attributed to the weakened heat energy and inflows from the Indian Ocean, but the surface salinity were varying with the combination effects of cooling process and desalination in middle and southern Gulf. The variations of salinity and temperature by desalination were likely to show seasonality, correlated with the seasonal cycles of hydrodynamic forces in the Gulf. Thus, the correlation would be evaluated how the variations of salinity and temperature resulted from the desalination response to the prevailing hydrodynamic forces in the Gulf.

3.4.3 Discussion of Simplified Model Test

The purpose of this simplified model test is to quickly recognize how the plants' discharge with high saline water and constant efflux affects the Gulf environment, before using the actual desalination discharge rates. The model with the desalination process activated shows the variations of salinity and temperature due to the discharge of desalination, with local increases of 1-2 ppt in salinity and 1-3 °C in temperature. Although the ocean circulation through the Strait of Hormuz may produce a decrease of salinity and temperature in some areas within the Gulf, this decrease is part of the overall variation of salinity and temperature driven by desalination and ocean circulation and are part of the simulation of the simple test-model. The input conditions of the desalination plants in this model test, such as flowrate, salinity and temperature, were constant quantities to present an analysis-case scenario for outcomes by

examining the salinity and temperature changes from the background values, during the five years simulation time span. In addition, the higher levels of salinity and temperature in outfall discharge based on Table 3.1, can lead to analyzing how fast the Gulf response of desalination process in the simplified model. Thus, we now investigate the environmental effects of a total of 76 desalination plants in the Gulf.

3.5 Results of Desalination Process (During 2004-2016)

A total of 76 desalination plants were applied to the modeling system (all input conditions of desalination process are listed in Appendix B), as shown in Table 3.4. Three different types of desalination and temporally varying brine discharge with salinity and

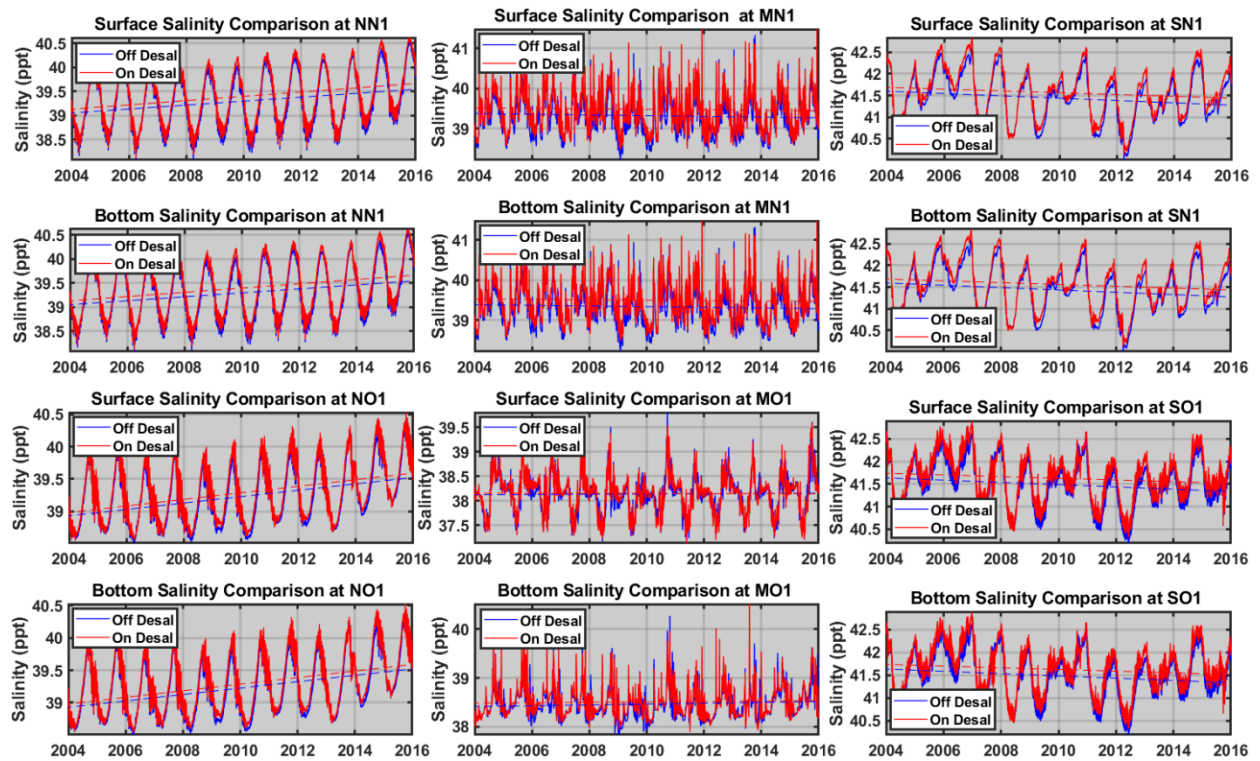


Figure 3.6 Comparisons of salinity (ppt) results of model at the six different locations (2004-2016).

Table 3.5 A total of 76 desalination plants and mean brine discharge (m3/s).

Country	Plant	Type	Outfall (m3/s)	Country	Plant	Type	Outfall (m3/s)
Kuwait	Ashwaiba	MSF	6.97	UAE	Tawila	MSF	35.74
		MED	1.55			MED	5.09
		RO	1.45			RO	1.64
	Doha-A	MSF	24.10		JabalAli	MSF	75.15
	Ashwaikh	MSF	3.10			MED	3.82
		RO	1.45			RO	6.27
	Azour	MSF	18.20		Shuwaihat	MSF	32.00
		MED	1.09			MED	0.64
	Alsubia	MSF	14.36			RO	0.46
		MED	9.55		Quidfa	MSF	9.18
Saudi Arabia	Khobar	MSF	18.86			MED	1.55
		RO	1.27			RO	5.00
	Jubail	MSF	52.06		Quidfa-Hybrid	MED	6.18
		MED	17.27			RO	1.73
		RO	5.82		Layyah	MSF	5.75
	Khafji	MSF	24.35			MED	2.45
		RO	3.20			RO	5.73
Bahrain	Sitra	MSF	4.63		Mirfa	MSF	5.64
		RO	0.73			MED	0.64
	Ras Jarjoor	RO	0.90			RO	0.10
		MSF	3.64		Ajman	MED	2.09
	Alhidd	MED	5.73			RO	2.73
		RO	2.36		Zawra	MSF	1.56
	Aldoor	RO	0.50			MED	0.64
	Alba	MED	0.64			RO	1.45
		RO	0.27	Iran	Bandar Abbas	MSF	0.91
Qatar	Ras Funats	MSF	26.00			MED	0.73
		MED	1.18			RO	1.18
		RO	0.73		Kishm	MSF	0.93
	Ras Lafan	MSF	14.45			MED	0.09
		MED	15.09			RO	0.09
		RO	2.45		Bandar Lingeh	MSF	0.18
	Dukhan	MED	1.20			MED	0.30
	Abu Samra	RO	0.27		Kish Isl	RO	0.10
UAE	Abudhabi	MSF	4.35		Asaluyeh	MED	1.55
	UmmAlNar	MSF	33.98			RO	1.56
		MED	0.64		Bushehr	MED	0.10
		RO	1.27			RO	0.27

temperature are employed for desalination process of the model, based on primary desalination data from Elhakeem (2014). However, Table 3.4 shows the mean brine discharge of each plant. The model provides the variations of salinity and temperature due to the effect of desalination effluent, including the local and global increase of salinity and seasonal characteristics of

hydrodynamics. In addition, we provide the remarks on environmental aspects, based on the model results.

3.5.1 Local and Global Variations of Salinity and Temperature

Table 3.5 shows the mean salinity and temperature for the model results of ‘On-Desalination model’ and ‘Off-Desalination model’, respectively at six different locations (as shown in Figure 3.6 and 3.7) during 2004-2016. At the nearshore area in the middle Gulf region, the maximum increase of salinity with 0.16 ppt was obtained from the effects of desalination, and the salinity increase were evidently shown in Figure 3.6. More high levels of salinity, about 1~1.2 ppt, are present in nearshore area rather than offshore in the middle Gulf, because of the proximity of brine discharge.

Table 3.6 Results of the model: mean salinity (ppt) and temperature (°C) during 2004-2016.

Location	Surface Salinity		Bottom Salinity		Surface Temperature		Bottom Temperature	
	Off	On	Off	On	Off	On	Off	On
NN1	39.30	39.40	39.30	39.40	24.01	24.02	23.91	23.93
NO1	39.23	39.29	39.23	39.29	24.06	24.07	23.92	23.92
MN1	39.32	39.48	39.34	39.50	24.28	24.36	24.17	24.25
MO1	38.14	38.15	38.46	38.51	24.68	24.67	22.36	22.36
SN1	41.44	41.56	40.43	40.56	24.56	24.57	24.43	24.44
SO1	41.49	41.63	40.48	41.63	24.54	24.55	24.50	24.51

Similar results were obtained in the northern and southern Gulf. Except for the offshore area in the middle Gulf, on the other hand, the desalination tends to increase temperature at all locations, but its effect is likely to be negligible. Through the twelve year span, the high salinity of desalination discharge exhibits a salinity increase, but the temperature effect of desalination is apparent at only six of the chosen locations. Figure 3.8 shows the monthly mean variations of salinity and temperature for global Gulf during the simulation period (2004-2016).

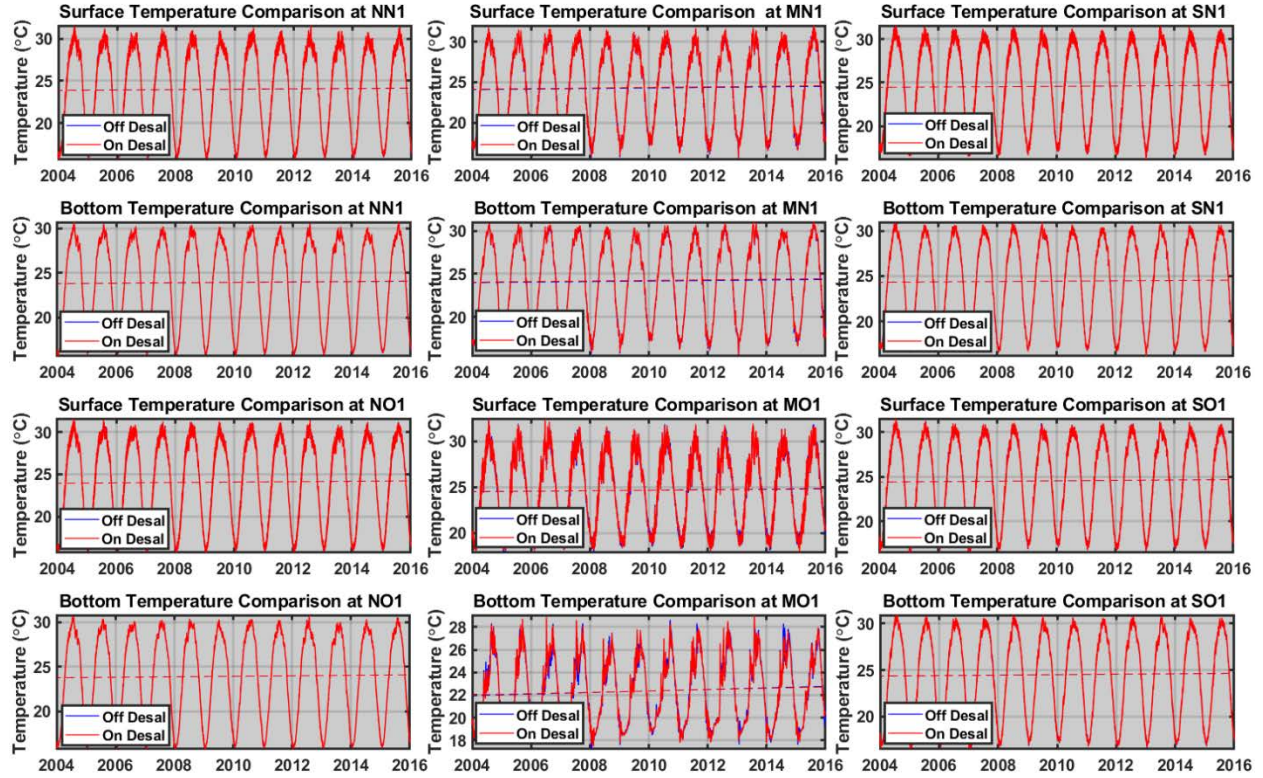


Figure 3.7 Comparisons of temperature ($^{\circ}\text{C}$) results of model at the six different locations (2004-2016).

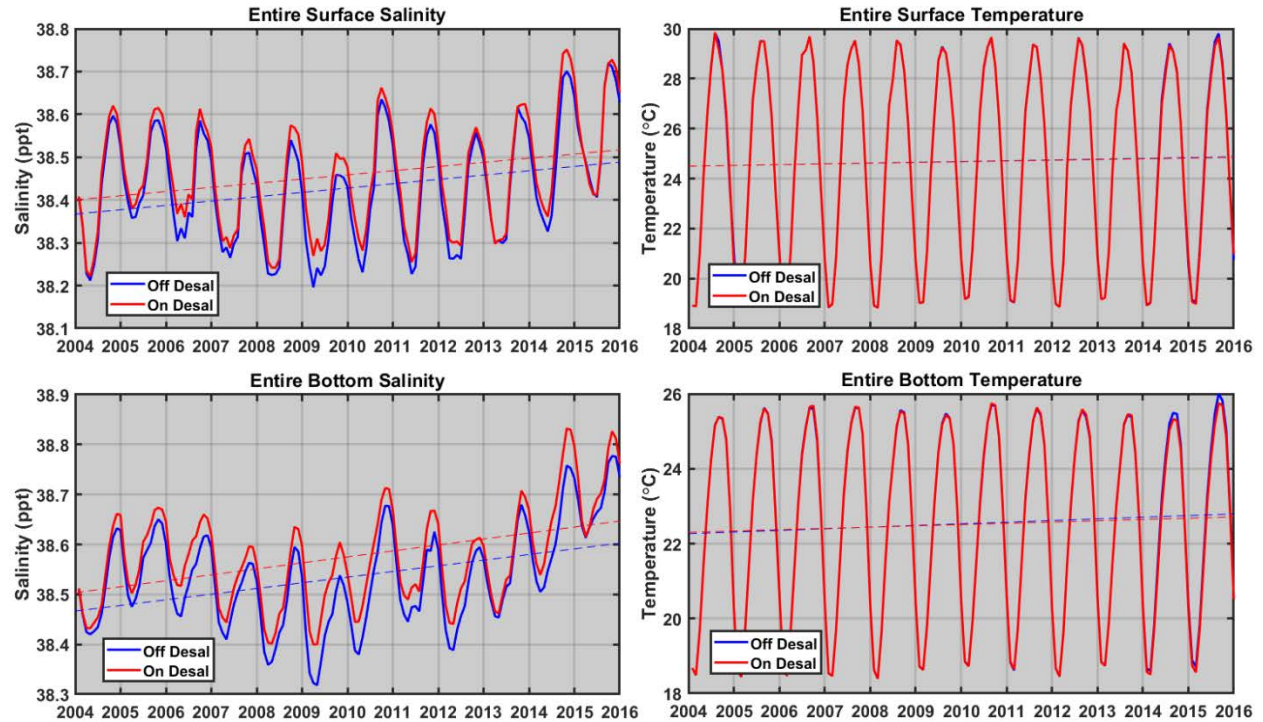


Figure 3.8 Monthly mean variations of salinity (ppt) and temperature ($^{\circ}\text{C}$) over the Gulf region.

The model with desalination process included shows a higher level of salinity, with 0.08-0.09 ppt and increasing trends at the surface and bottom. However, the difference of monthly mean temperature, between ‘On’ and ‘Off’ desalination cases, is likely to remain mostly unchanged for the entire Gulf. In particular, it is noted that the summer temperature of ‘On Desalination’ case in 2014-2015 show a slightly lower level of temperature than ‘Off Desalination’, about 0.2~0.3 °C, but the difference of temperature across entire Gulf is negligible in comparison over a long simulation. Figure 3.9-3.12 display the difference (‘On Desalination’ minus ‘Off Desalination’) of monthly mean surface salinity and temperature of entire Gulf, respectively during the 12 years (2004-2016). As shown in Figure 3.9 and 3.10, an increase in salinity of about 0.2 ppt and a maximum of 1 ppt over the background monthly mean salinity, were obtained along the Gulf coast. In particular, increased levels of salinity appeared constantly near the southern Qatari coast, as well as Bahrain and Kuwait Bay, due to the impeded circulation in these regions.

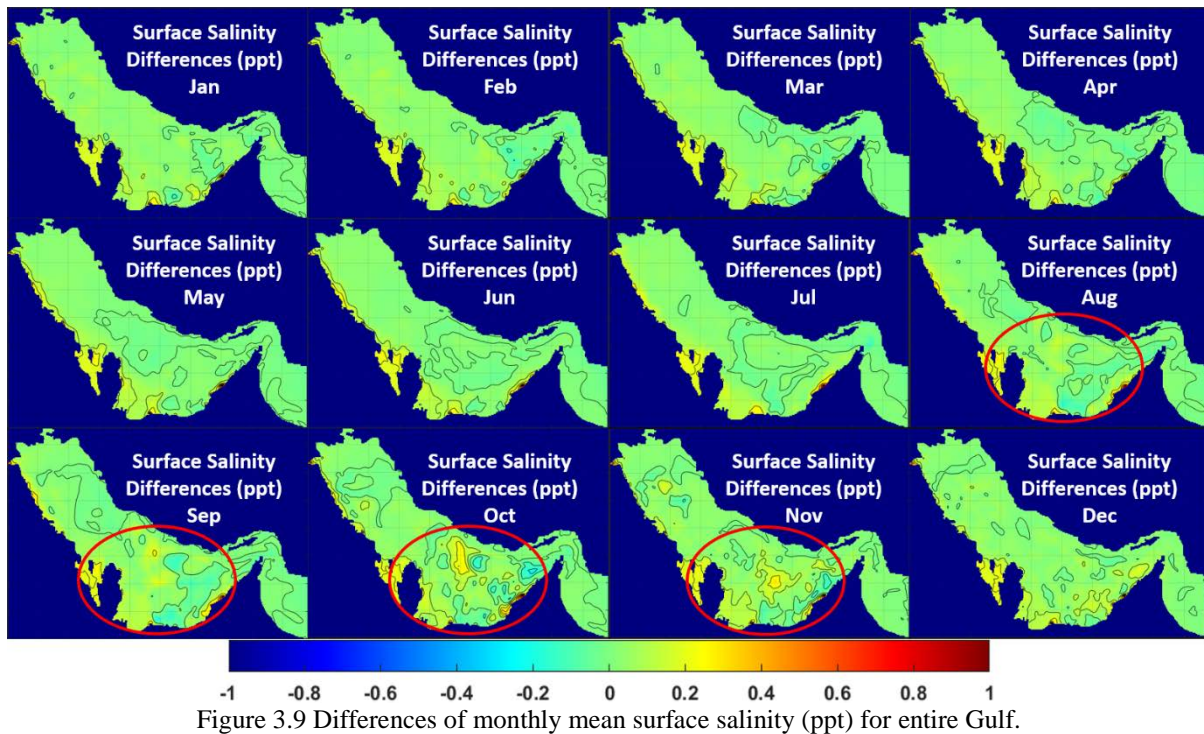


Figure 3.9 Differences of monthly mean surface salinity (ppt) for entire Gulf.

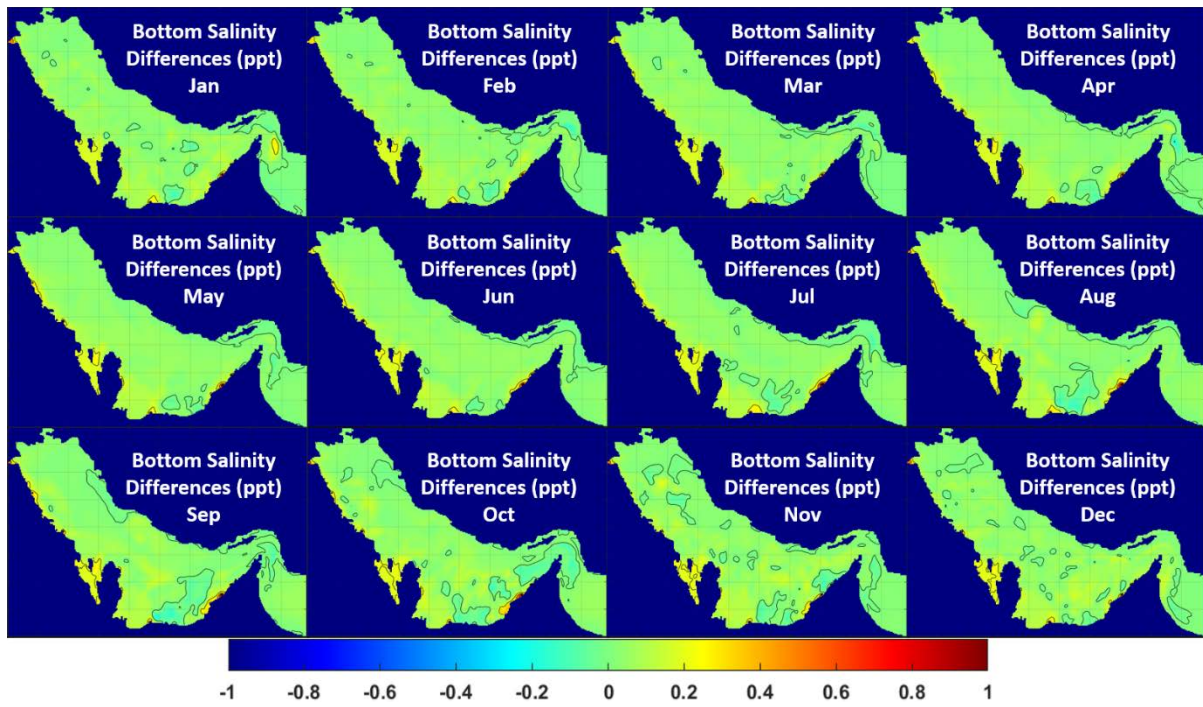


Figure 3.10 Differences of monthly mean bottom salinity (ppt) for entire Gulf.

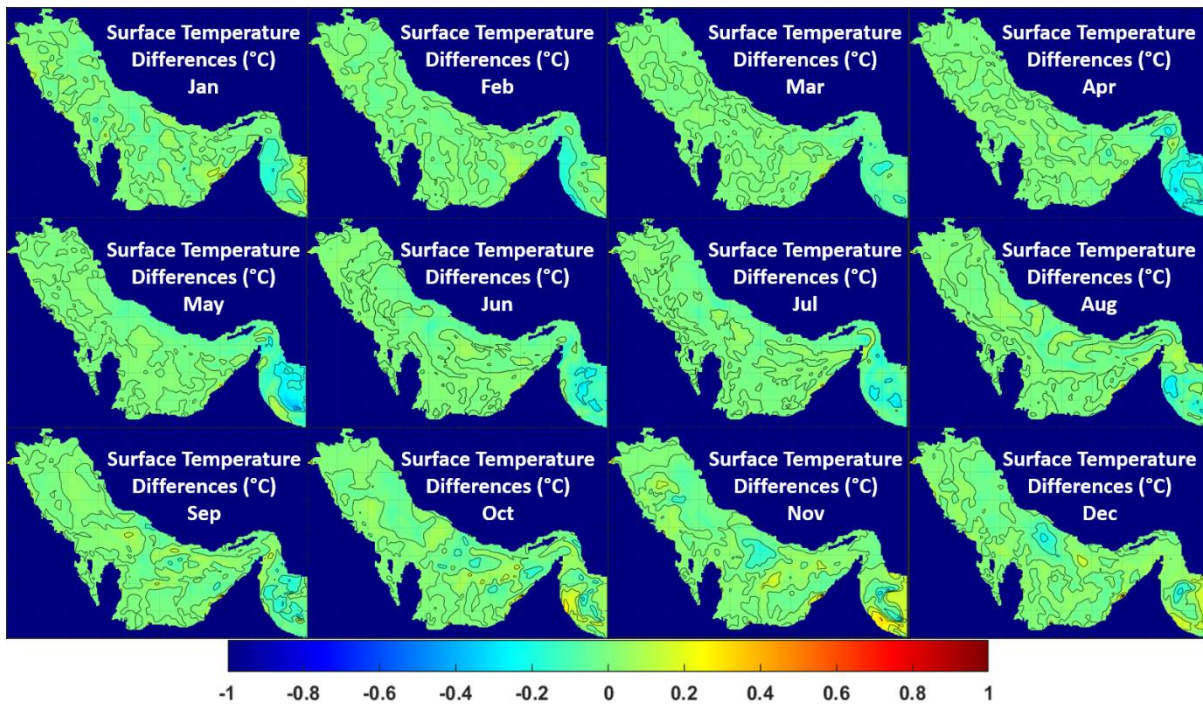


Figure 3.11 Differences of monthly mean surface temperature (°C) for entire Gulf.

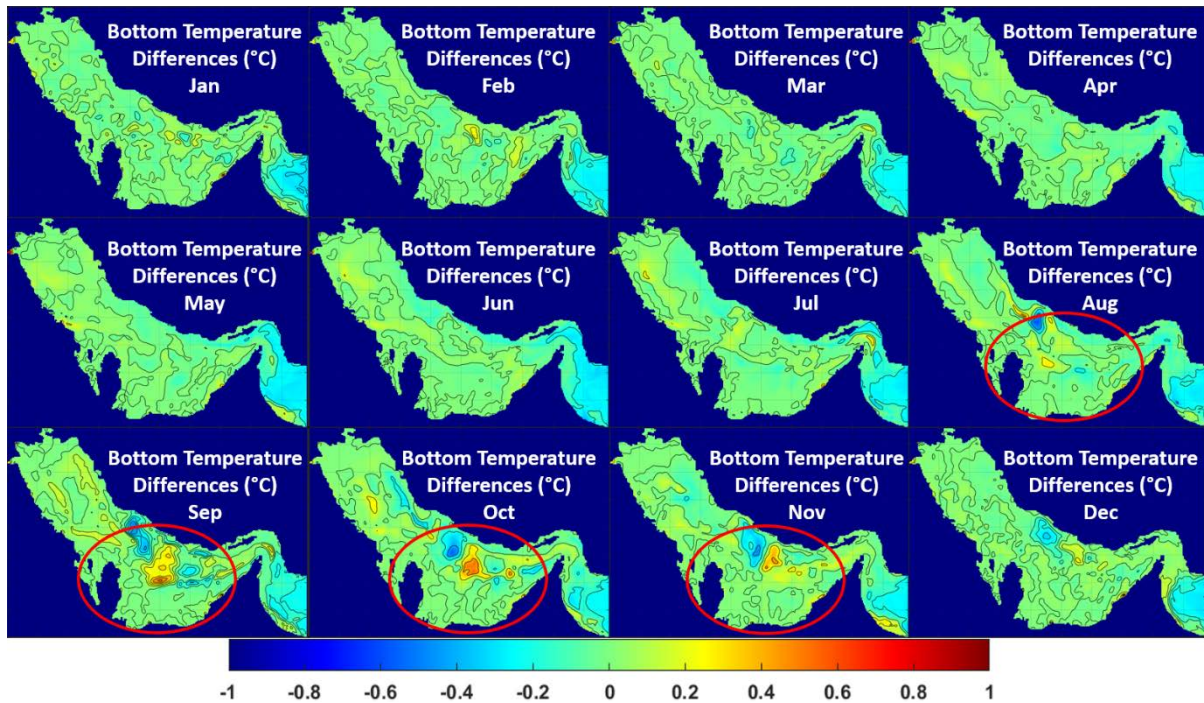


Figure 3.12 Differences of monthly mean bottom temperature (°C) for entire Gulf.

The increase in bottom salinity by the effect of desalination were relatively consistent, approximately 31.8% higher than at the surface, and its increase is most striking in areas surrounding the desalination plants. Along the western coast, Saudi Arabia, Kuwait and Bahrain bays, Qatari peninsula and UAE, the increased levels of salinity are seen over the course of the entire year. The Iranian side of the Gulf, with a maximum depth of 90 m (Agah et al., 2009), however, is not affected by the desalination discharge, likely due to the massive inflow of fresh water through the Strait of Hormuz and Gulf circulation. Figure 3.11 and 3.12 shows the differences of monthly mean temperature variations at the surface and bottom, respectively, between two different model runs. The preceding results in Figure 3.7 and 3.8, indicated that the effect of desalination was not significantly dependent on the temperature, and it is not also likely to experience significant changes of temperature in entire Gulf due to the presence of desalination plants. However, there are locally increased levels of temperature, with 0.2~1.0 °C

at the adjacent areas to the desalination discharge in the Kuwait bay and nearshore of UAE than the background monthly mean temperature. It is interesting to note that there are notable increases of mean surface salinity and bottom temperature between August and November during 12 years, as shown in the red circle of Figure 3.9 and 3.12. There were no discharge pipes of desalination plants in the red-circle area, but various physical processes may act on the salinity and temperature fields in the middle Gulf area. This is in line with the findings of Morelissen et al. (2016), who provided the depictions of the Gulf circulation, pollutant tracer and spreading of harmful algae blooms and oil spills in the Gulf area via satellite images. These images show that the tracer residence time is high in the vicinity around the red circle in Figure 3.9, likely due to the Gulf circulation, evaporation, wind driven thermohaline process and surface water inflows from the Indian Ocean. The specific times of these occurrences do not appear in figures by Morelissen et al. (2016), but it is likely that the high rates of evaporation during summer to fall lead to increased salinity and temperature due to the effect of brine discharge, as shown in Figure

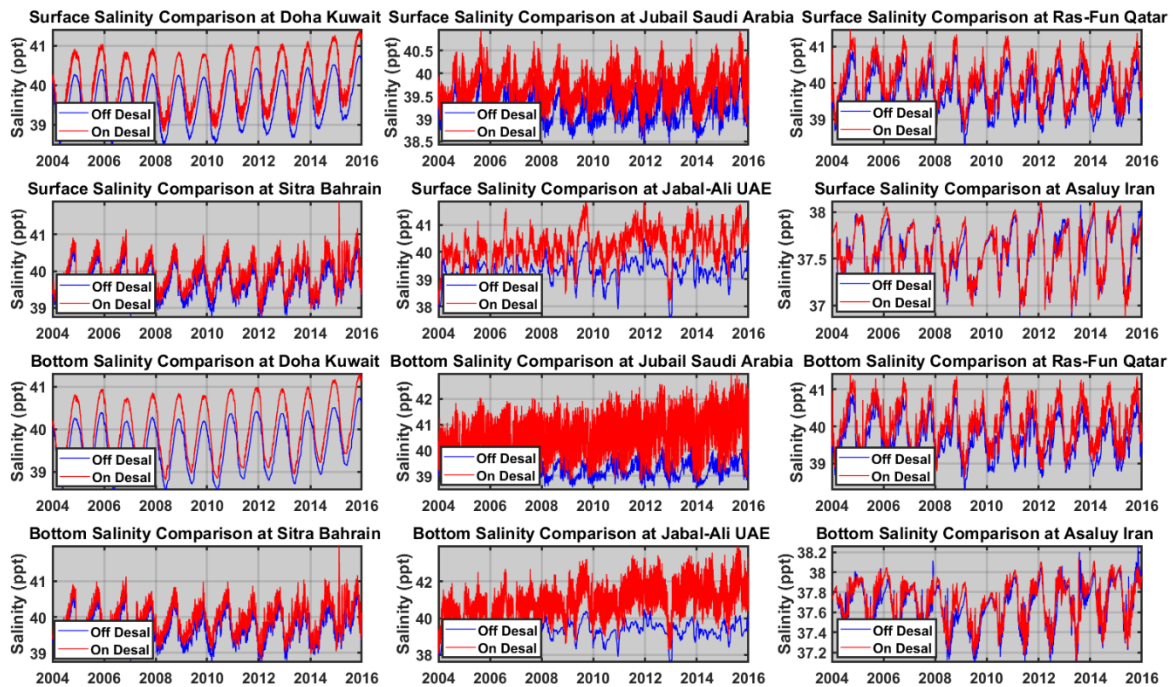


Figure 3.13 Comparisons of salinity (ppt) at the near areas to the six desalination plants.

3.9 and 3.12. Figure 3.13 and 3.14 show the comparisons of salinity and temperature to investigate the effects of brine discharge at the adjacent areas to the desalination plants. Additionally, using the Estuary Lake Coastal Ocean Model (ELCOM), Alosairi et al. (2011) show the longest residence time (858 days) near the Kuwait Bay, Qatar and UAE coast, and the lowest days (2 days) at the Strait of Hormuz due to the effects of open boundary.

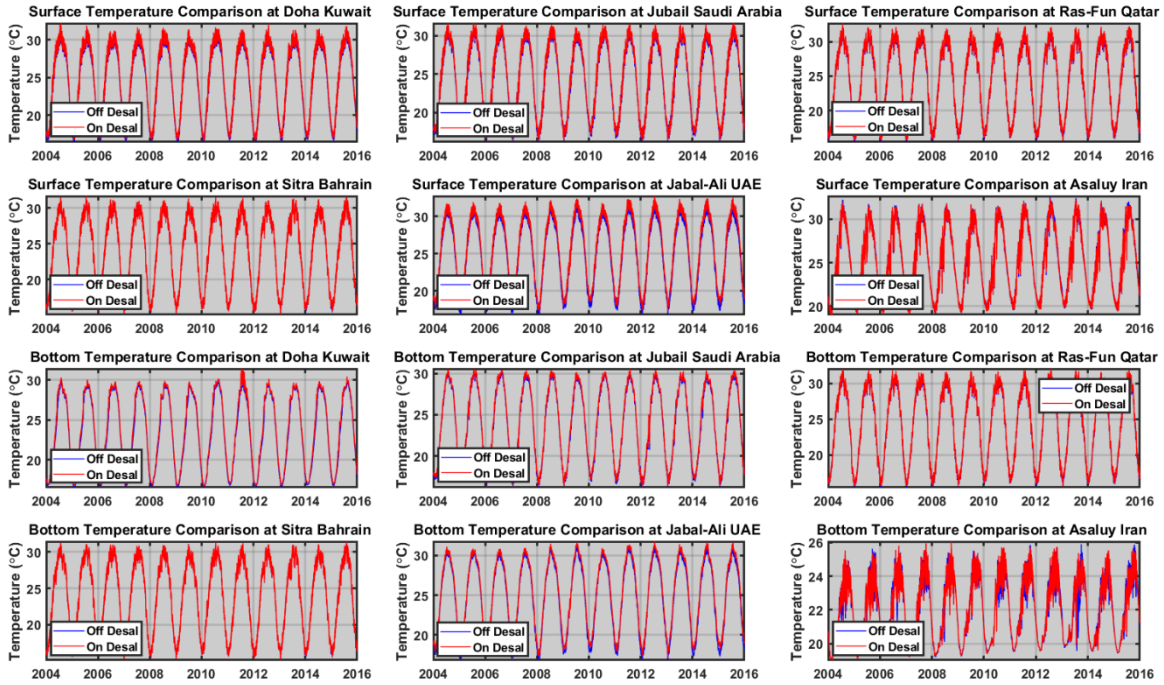


Figure 3.14 Comparisons of temperature (°C) at the near areas to the six desalination plants.

As shown in Table 3.6 and Figure 3.1, the six major desalination plants of six Gulf countries were used to compare the variations of salinity and temperature, and mean 1.27 ppt increase in salinity and 0.49 °C increase in temperature were obtained from these locations. The maximum 4.21 ppt increase of bottom salinity and 1.6 °C increase of surface temperature were resulted in Ali-Jabal desalination plant of UAE. The influence of brine discharge is mainly localized within 2~3 km from the discharge location, and unaffected in the offshore areas, likely due to more dilution.

Table 3.7 Mean and maximum Increases of salinity and temperature at the major six desalination plants.

No.	Country	Plant (Location)	Mean Increased Surface Salinity	Mean Increased Bottom Salinity	Mean Increased Surface Temperature	Mean Increased Bottom Temperature	Max. Increased Salinity	Max. Increased Temperature
1	Kuwait	Al-Doha (DK1)	0.50 ppt	0.41 ppt	0.22 °C	0.39 °C	0.84 ppt (Surface)	2.74 °C (Bottom)
2	Saudi Arabia	Jubail (DS1)	0.51 ppt	1.40 ppt	0.24 °C	0.26 °C	3.41 ppt (Bottom)	1.94 °C (Bottom)
3	Qatar	Ras Funats (DQ1)	0.41 ppt	0.40 ppt	0.21 °C	0.21 °C	1.16 ppt (Surface)	0.86 °C (Bottom)
4	Bahrain	Sitra (DB1)	0.21 ppt	0.23 ppt	0.05 °C	0.04 °C	0.88 ppt (Bottom)	0.48 °C (Bottom)
5	UAE	JabalAli (DU3)	0.96 ppt	1.58 ppt	0.51 °C	0.47 °C	4.21 ppt (Bottom)	1.60 °C (Surface)
6	Iran	Asaluy (DI1)	0.02 ppt	0.04 ppt	0.03 °C	0.02 °C	0.43 ppt (Bottom)	4.32 °C (Bottom)

3.5.2 Ecological Aspect of Desalination

The studies how the plants' discharge with high saline water directly affects the Gulf environment and marine ecosystem, are somewhat scarce for the Gulf region. According to several studies concerning the negative impacts of the desalination discharge (Purnama et al., 2005, Dupavillon and Gillanders, 2009), the increased levels of salinity and temperature influence fish growth (Boeuf and Payan, 2001) and eggs production (Dana and Lenz, 1986) in marine ecology. For example, the mangroves and corals, inhabiting the Gulf environment are relatively strong tolerance to sever water conditions (Purnama et al, 2005). However, the mangroves are sensitive to salinity changes between inland freshwater and seawater. If the seawater is too saline condition by the desalination discharge, their growth can be seriously affected and it may be fatal risk on their survival (Burchett et al, 1989). The corals are also sensitive to the high temperature (Brown, 1997), so that increased high level of temperature may be deadly impact on the coral reef. In addition, the mollusks, fish and seagrass living in the Gulf

are significantly affected by the increases of salinity and temperature. Their habitats are also vulnerable to the brine discharge (Purnama et al, 2005). There is no effects under a 19 ppt increase for a fish (Iso et al., 1994), but the potential high risk of the growth (Boeuf and Payan, 2001) and eggs production (Dana and Lenz, 1986) was defenselessly exposed. Mollusks, such as cuttlefish inhabiting the Gulf area (Amini Yekta et al., 2014), may be reduced in their size and weight by the 3ppt increase, and their survival endangered by 6 ppt increase from the background salinity (Dupavillon and Gillanders 2009, in the upper Spencer Gulf, South Australia) in DS1, Saudi Arabia and DU3, UAE. Latorre (2005) and Sánchez-Lizaso et al. (2008) have conducted laboratory experiments about the response of seagrass to brine discharge. They observed reduced growth, greater occurrence of necrotic local lesions and premature senescence at approximately 39 ppt. Marine animals which are not tolerant to increasing salinity and temperature within specific area, often relocate their habitats from the affected areas (Young and Potter, 2002). Although investigating the levels of tolerance and subsequent marine health will be required to ensure the ecological impact in the Gulf region, the increases of salinity and temperature driven by the saline discharge of desalination show the potential threat on the marine environment and ecosystem, as a result of increased salinity and temperature due to desalination as outlined herein. From the background salinity and temperature in the Gulf, the model provides the maximum 4.21 ppt increase in salinity (near JabalAli, UAE) and 4.32 °C increase in temperature at the adjacent area to the Asaluy desalination plant in Iran, due to the brine discharge of desalination, as shown in Table 3.6. The desalination process has caused deleterious effects on the marine environment due to the vast amounts of high saline water from the plants' discharge, and it has been clearly demonstrated through various studies. The prospect of future growth of desalination process in the Gulf region in terms of capacity and production rate (GWI,

2010), imparts the need of continuing interest for the desalination process and its environmental impact in the Gulf region.

3.5.3 Seasonal Variations

The seasonal characteristics of salinity and temperature were obtained from the model results. This is likely to be attributed to the unique meteorological and oceanographic features. The hydrodynamic characteristics in the Gulf show high variability forced by the evaporation and precipitation rate (Premchand et al., 1986; Ahmad and Sultan, 1991; Mosaddad and Delphi, 2013). The ‘Evaporation Minus Precipitation (EMP) rate (Kumar and Prasad, 1999; Xue and Eltahir, 2015; Pous et al., 2015), the positive EMP rates for a long-term period may be attributed to the high potential of warm and saline water environment in the Gulf region. In addition, the strong seasonal winds, during *Shamal* events, may affect the vertical water mixing and

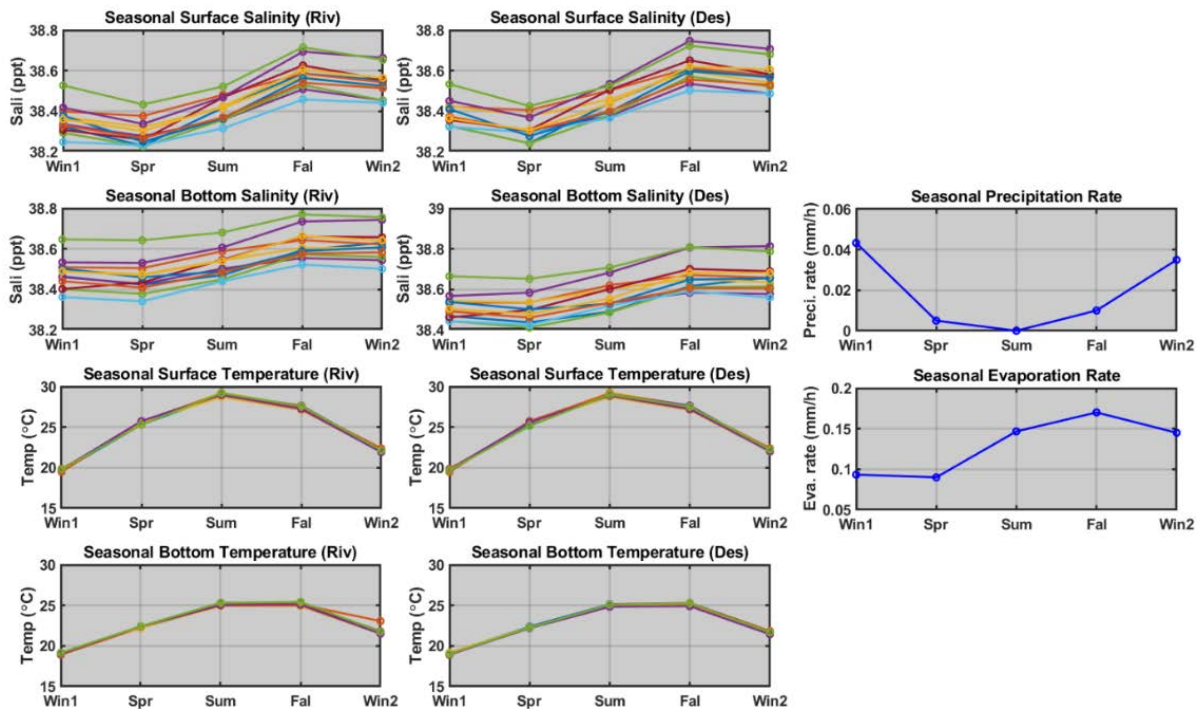


Figure 3.15 Variations of seasonal mean salinity and temperature, compared with precipitation and evaporation rates.

thermohaline structure, likely due to the surface wind force (Reynolds, 1993). In chapter II, we had identified that both the evaporation and precipitation rates were significant factors for leading to salinity increase, from the results of sensitivity analysis (as described in the part 2.5.1). They have also shown the homogeneity of vertical structure in the salinity and temperature at the nearshore area and have addressed that the unique seasonal winds may induce the characteristics of vertical water mixing in the Gulf region, during the sensitivity study. Figure 3.15 shows the variations of seasonal mean salinity and temperature, compared with the input-conditions of the precipitation rate (54 years, 1948~2002, of National Oceanic and Atmospheric Administration (NOAA) data) and evaporation rate (Elhakeem et al., 2015). The seasonal variations of salinity are highly dependent on the input-evaporation rate, and the seasonal temperature is greatly affected by the input-precipitation.

The annual mean evaporation rate of the Gulf is generally 1.8 m/yr (Kämpf and Sadrinsab, 2006), 2 m/yr (Hastenrath and Lamb, 1979; Meshal and Hassan, 1986;) and 2.09 m/yr (Elhakeem et al, 2015), and the maximum rate of evaporation was found in the summer season (2.55 m/yr, Elhakeem et al., 2015). Privett (1959) estimated the annual evaporation rate, 1.44 m/yr, with the highest rate in winter, contrasting result to the recent studies (Sultan and Elghribi, 2002; ElNesr et al., 2011, etc.) which show the highest rate in summer. This study presents also the highest evaporation rate 2.57 m/yr in summer, as shown in Table 3.7.

Table 3.8 Seasonal mean evaporation flux and rate from the model results.

Season	Evaporation Flux (W/m ²)	Evaporation Rate (m/yr)
Winter	133.15	1.68
Spring	156.62	1.98
Summer	203.92	2.57
Fall	191.14	2.41
Mean	163.60	2.06

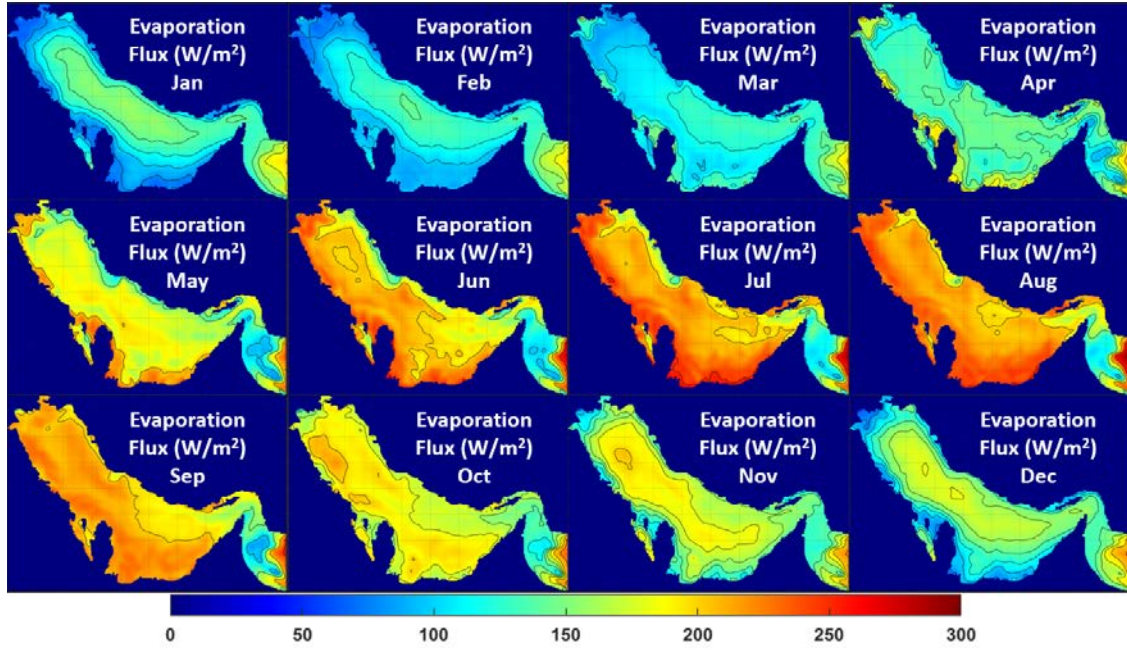


Figure 3.16 Monthly mean evaporation flux of entire Gulf (W/m^2).

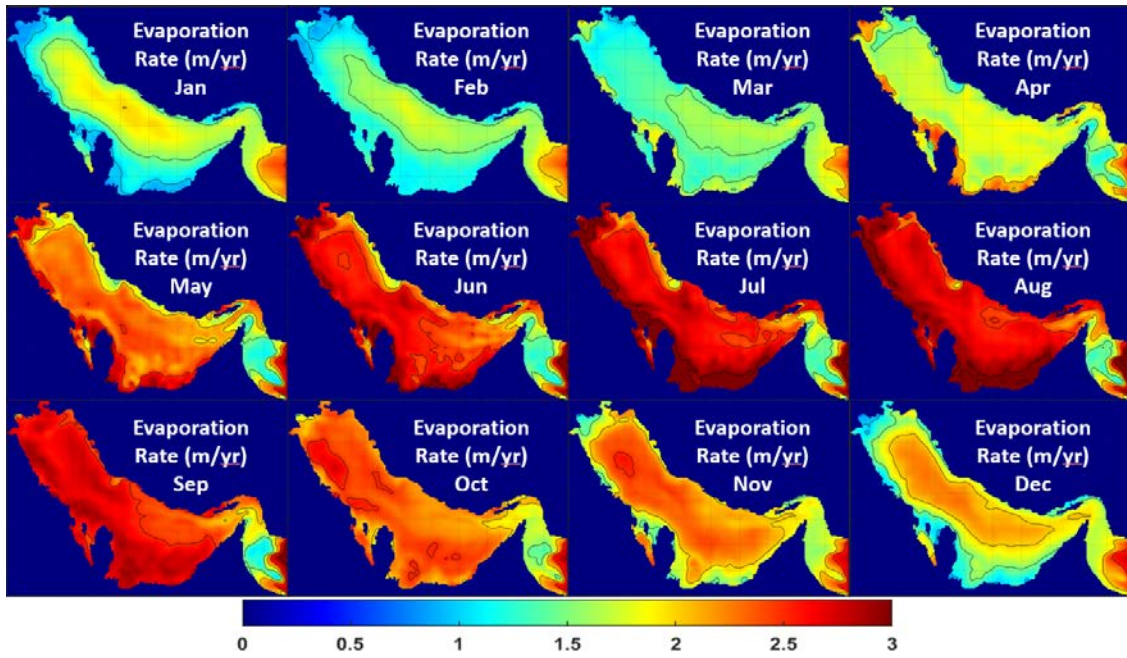


Figure 3.17 Monthly mean evaporation rate of entire Gulf (m/yr).

In Figure 3.15, the levels of mean salinity in fall show slightly higher about 0.1~0.2 ppt than mean salinity in summer and the levels of salinity in spring show typically lowest values.

Correspondingly, Kämpf and Sadrinsab (2006) found that maximum salinities were obtained during October to December, while the minimum salinities were attained during March to May each year. Figure 3.16 and 3.17, in addition, show the seasonal mean evaporation flux and rates from the model results, respectively. Figure 3.16 shows the evaporation flux of entire Gulf, with maximum flux 203.92 (W/m^2) in summer and the minimum 1.68 (W/m^2) in winter. Figure 3.17, on the other hand, shows the seasonal mean evaporation rate by calculating with evaporation flux. The Gulf has an annual mean evaporation rate 2.06 m/yr, with maximum 2.57 m/yr in

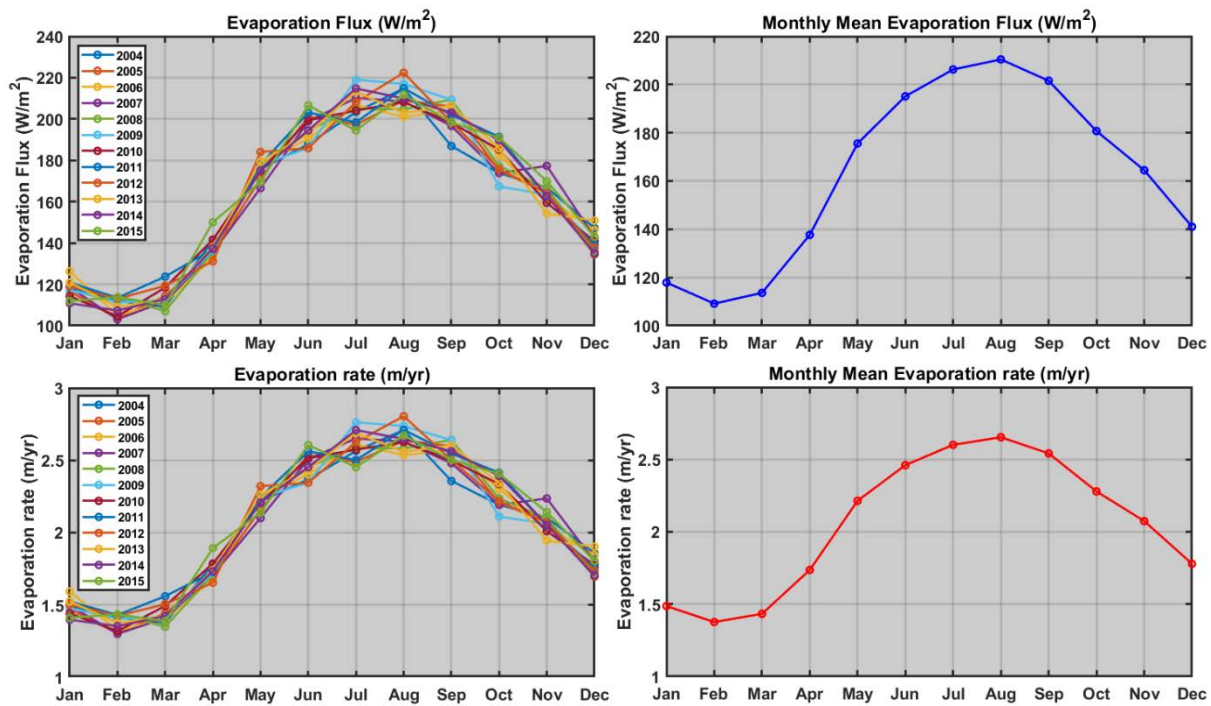


Figure 3.18 Variations of monthly mean evaporation flux (W/m^2) and rates (m/yr) over the Gulf.

summer and minimum 1.68 m/yr in winter, as shown in Table 3.7. Despite the evaporation rate in fall is slightly less than in summer, the relatively higher evaporation rate in fall can lead to highest level of salinity in the Gulf region, likely due to that the consecutive high evaporation

rates during summer and fall strongly act on the Gulf environment. Figure 3.18 shows the variations of monthly mean evaporation flux and rates for entire Gulf.

3.5.4 Correlating the Variations of Salinity with Winds

The seasonal correlation between salinity and winds, how the variations of salinity from the desalination response to the prevailing winds in the Gulf, has been investigated. One drawback of correlating between winds and salinity is that a relatively limited area is used in a region with significant spatial variation of forcing and oceanographic response. It is anticipated that the results of a relatively small area may correlate better between the variations of salinity and winds than if this were performed over the global Gulf, likely due to the reduced effects of unrelated dynamic forces over the Gulf. Using the concept of convective derivative (Ockendon, H. and Ockendon, J.R., 2004), we examined the degree of salinity variations. Equation 3.1 shows the degree of salinity variations in a water column (10 layers applied to the model), and the result of these calculations defined as a strength index of salinity variation in spatial and temporal scales.

$$\text{Strength of variations} = \sum_{n=1}^{10} \text{mean}\left(\frac{DS_n}{Dt}\right) = \sum_{n=1}^{10} \text{mean}\left(\frac{\partial S_n}{\partial t} + (u_n \cdot \nabla) S_n\right) \quad (\text{Eq. 3.1})$$

where ∇ is the gradient operator with respect to the x and y components; S is salinity at the center point of given area. Figure 3.19 shows the strength of seasonal salinity variations with respect to wind speeds near northern Qatar peninsula. There are the positive correlations between salinity variations and winds, including different seasonal correlation coefficients (slopes). The relatively lower correlation coefficients during winter and spring were obtained from the model results. It

is likely due to a persistent force of prevailing wind (strong, over 7 m/s) on the water surface as shown in Table 3.8.

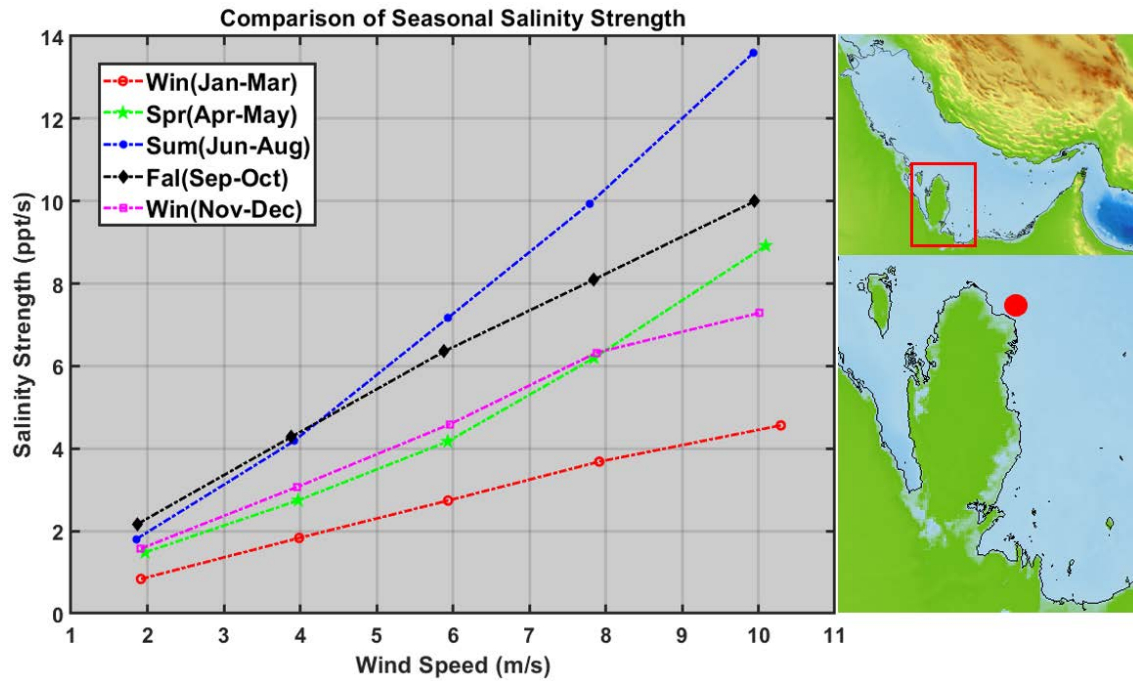


Figure 3.19 The strength of seasonal salinity variations correlating with wind speed (m/s).

Table 3.9 Percentage (%) distributions of seasonal wind speed (m/s) near Qatar peninsula.

Season (%)	Wind Speed (m/s)				
	0 ~ 3	3 ~ 5	5 ~ 7	7 ~ 9	9 ~
Winter (Jan-Mar)	17	23	28	35	51
Spring (Apr-May)	15	18	19	17	14
Summer (Jun-Aug)	32	24	23	17	9
Fall (Sep-Oct)	24	17	11	7	7
Winter (Nov-Dec)	13	17	19	23	18

These effects lead to a strong homogeneity of salinity over the water depth, as well as indicating that the water column becomes well mixed during winter and spring. However, the wind velocities in summer are mainly in the relatively low range of 0-7 m/s. In summer, the Gulf is directly affected by the dominant high evaporation driven by intensive solar heat at the surface

rather than wind forcing. High evaporation and accompanying winds during summer strongly influence the surface variations of salinity, which can result in high correlation coefficients. The strength of salinity provides a useful means of correlating with winds. The consequence of the increased strength indicates that lasting and strong winds lead to the low correlation coefficients and makes more homogeneity, indicative of well mixing in water column. The strong and seasonal winds, ‘*Shamal*’ events induced significant hydrodynamic features in the Gulf, its effect also appears in corresponding salinity variations.

$$\sigma_{layer} (SD) = \sqrt{\frac{1}{N} \sum_{n=1}^N mean[(S_n - \bar{S}_{layer})^2]} \quad (Eq. 3.2)$$

The standard deviation (Eq. 3.2) was applied to determine how the winds can affect the salinity changes in water column of selected area. Figure 3.20 shows the correlation between salinity changes and winds, using the mean-standard deviation. The standard deviation of salinity showed low levels when forced by strong winds. It is likely that the salinity is rapidly mixed and

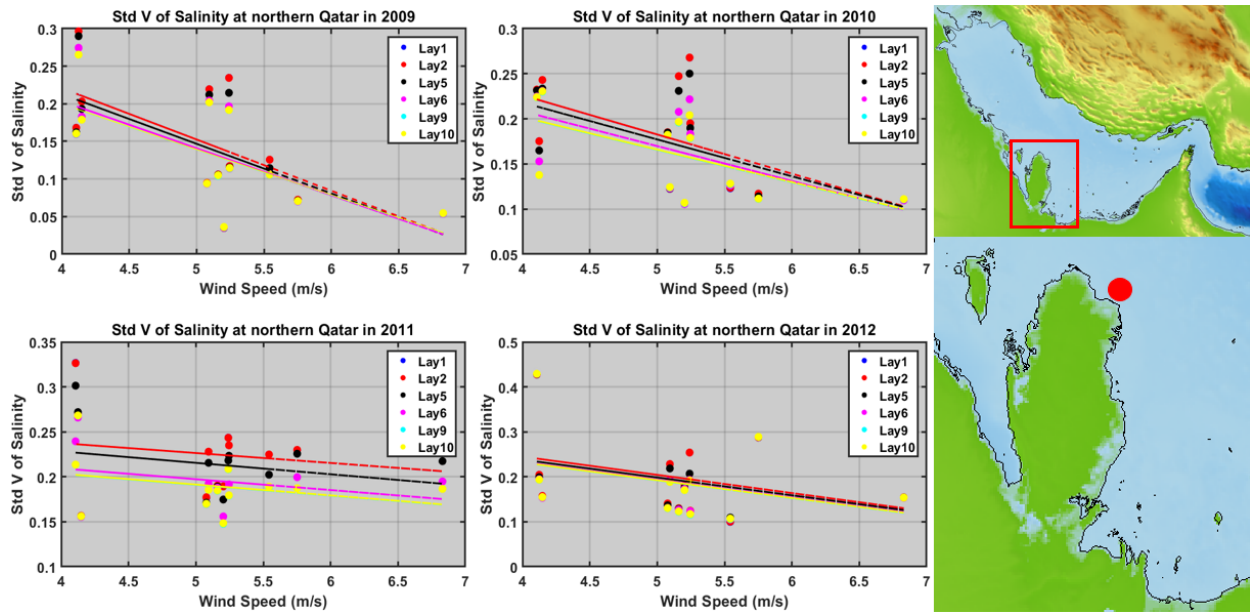


Figure 3.20 Correlations between salinity changes and winds in water column near Qatar peninsula, using the standard deviation (Layer1: Surface, Layer10: Bottom).

becomes horizontally homogeneous due to strong winds. The convergence of standard deviation, in addition, was seen in accordance with high wind speed, this result demonstrated a homogeneous vertical distribution of salinity. As Figure 3.20 shows explicitly, the correlation between salinity and winds indicated that the salinity changes at water surface were strongly affected by winds and its changes presented the decreasing correlations in horizontal and vertical direction over wind speed.

The correlation between the seasonal *Shamal* and salinity offers an important perspective in the face of climate change. Riegl (2003) proposed that climate change effects will lead to weaker *Shamal* for the climate scenario of 2100. As shown above, the salinity field in the Gulf is directly affected by the winds and desalination use, so that these results of correlation show the potential threat on the future Gulf environment due to the increase of desalination use (or need) and winds affected by climate change in the future.

3.6 Conclusion and Discussion

The growth of population and industry in the Gulf has led to significant development of desalination processes under the arid climate with high evaporation rate. Desalination has been developed to meet various growing water demands, such as potable water for human consumption, agricultural and industrial uses, along the Gulf coast. It is actively ongoing in worldwide and will be more increased in terms of capacity and quantity, thus the assessment of environmental impact due to the effect of high saline brine discharge is apparently required. We have developed the desalination model to investigate the environmental effects of plants'

discharge, using the hydrodynamic model, Delft3D-Flow. Using the validated model (as described in Chapter II) including three-dimensional temporally varying climatological and oceanographic conditions over a finer model grid, several assumptions on desalination process were additionally applied to this study. Simplified model provided an important perspective how the plants' discharge affects the Gulf environment. The major 12 desalination plants in the Gulf have led to locally 1~2 ppt in salinity and 1~3 °C temperature increases, and the seasonal variations of salinity and temperature were obtained from the results of simplified model. This imparts a significant need for the investigation of environmental impact due to the brine discharge of desalination in the Gulf region.

Table 3.6 shows the results of local area with increases of salinity and temperature by desalination discharge during the 12 years. Increased levels of salinity appeared constantly across entire Gulf, but there are locally increased levels of temperature, with 0.2~1.0 °C in the vicinity of the desalination plants, as shown in Figure 3.11 and 3.12. In addition, the seasonal characteristics of salinity and temperature were obtained from the model results. The seasonal mean salinity and temperature were strongly affected by input-evaporation and precipitation conditions, respectively. The highest level of salinity was seen in fall due to the effect of consecutive high evaporation rate during from summer to fall, which strongly influence on the Gulf environment. The evaporation rate in fall is slightly less than in summer, as shown in Table 3.7, but its effect is more likely to persist through summer to fall. The variations of salinity correlated with the wind speed, as shown in Figure 3.19-3.20. It associated with the degree of vertical homogeneity and mixing in salinity. We, in addition, concern that future desalination and winds driven by climate change will be more likely to induce a significant impact on the Gulf hydrodynamics and transport of salinity and temperature, and lead to the potential threat on the

marine environment and ecosystem. It is uncertain and difficult to estimate the cumulative effect of desalination and seasonal variations of salinity and temperature due to the climate change in current stage, but Riegl's climate scenario (Riegl, 2003) shows future Gulf environments 2100 driven by high temperature and weakened winds as a result of response of long-term interaction. The maximum 4.21 ppt increases in salinity and 4.32 °C in temperature due to the brine discharge of desalination were obtained at the adjacent area to desalination plant. These substantial changes response to the desalination have a high potential to deteriorate the marine ecosystem. It has been reported that the increases of salinity and temperature influence negatively fish growth (Boeuf and Payan, 2001) and eggs production (Dana and Lenz, 1986) in marine ecology. As a result, the mollusks, fish and seagrass living in the Gulf are significantly sensitive to the changes of salinity and temperature (Amini Yekta et al., 2014; Dupavillon and Gillanders 2009; Latorre 2005; Sánchez-Lizaso et al., 2008; Iso et al., 1994).

A more comprehensive approach to assess high risk (Hart et al., 2003) of salinity and temperature increases are required for the marine ecosystem. Because of significant reduction of surface- and groundwater resources due to the climate change in the future (Immerzeel et al., 2011), the high reliance on desalination in the Gulf region will be facilitated. A modeling effort would be required to incorporate the climate change response to the climatological and oceanographic conditions with future desalination process in the Gulf for the total modeling system. The environmental impact assessment of desalination discharge with the effect of global climate change still remains a significant need for the Gulf study. In addition, the flushing (residence) time and dilution problems driven by desalination process in the Gulf region will be discussed and estimated with the physical and hydrodynamic processes in the Gulf environment.

3.7 References

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CHAPTER IV

MODEL PREDICTION: EXTREME CONDITIONS AND NATURAL HAZARDS

Both the hydrodynamic and coupled (Hydrodynamic + Wave) model configurations will be tested and implemented for hydrodynamic and wave predictions of extreme natural events for the Gulf region. Super Cyclone Gonu in 2007 caused substantial damage to the coast of Oman and resulted in a reported average storm surge of about 5 m (Fritz et al., 2010). This event also caused major destruction in the Muscat area of Oman, and resulted in water shortages due to heavy damage to Oman's desalination plants (Kwarteng, 2010). In addition, the cyclone pushed Gulf water outward through the Strait of Hormuz, causing an anomalously high degree of salinity in the middle of the Arabian Sea after the passage of cyclone (Wang et al., 2013), leading to a potential threat on the biological productivity of the area. This chapter provides a basis for future depiction of possible risk for coastal communities in the Gulf, and also estimate the potential damage to infrastructure, and the threat to biological productivity by increasing salinity and temperature. The winds from Cyclone Gonu are generated and used in the modeling system, and the hydrodynamic features and extreme values evaluated, using hydrodynamic (Delft3D-FLOW) and coupled (Delft3D FLOW+WAVE) models. Further, this study will demonstrate the potential impact of future cyclone events in the Gulf. It should be stated here that the emphasis on the cyclone's effects is on the changes to the salinity and temperature characteristics of the Gulf region; investigation of nearshore hydrodynamic effects such as storm surge will be the focus of later studies.

4.1 Introduction

Tropical cyclones are one of the most violent and destructive weather systems, threatening coastal facilities and populations. The violent surface winds, heavy rainfall and strong surge are the most damaging characteristics of extreme weather conditions (Taylor and Hebert, 1978). Many cyclones have developed in the northern Indian Ocean, but the Bay of Bengal has experienced four times more activity than the Arabian Sea (Piontkovsko and Al-AZri, 2010; Najar and Salvekar, 2010). Two cyclones, on June 4th-5th, 1890 and May 2nd, 1959, inflicted the most devastating coastal disaster in Oman on record (Bailey, 1988). In particular, the 1890's cyclone resulted in 727 deaths, and dropped about 300 mm rainfall on Muscat (Blount et al., 2010). In addition, the 1959 cyclone caused 141 deaths and dropped about 117 mm rainfall in the city of Salalah (Al-Maskari, 2010). In the northern Indian Ocean, there are two peaks in the frequency of occurrence of cyclones as shown Figure 4.1, corresponding to pre-monsoon (Apr-May) and post-monsoon (Oct-Nov) seasons (Membery, 1985).

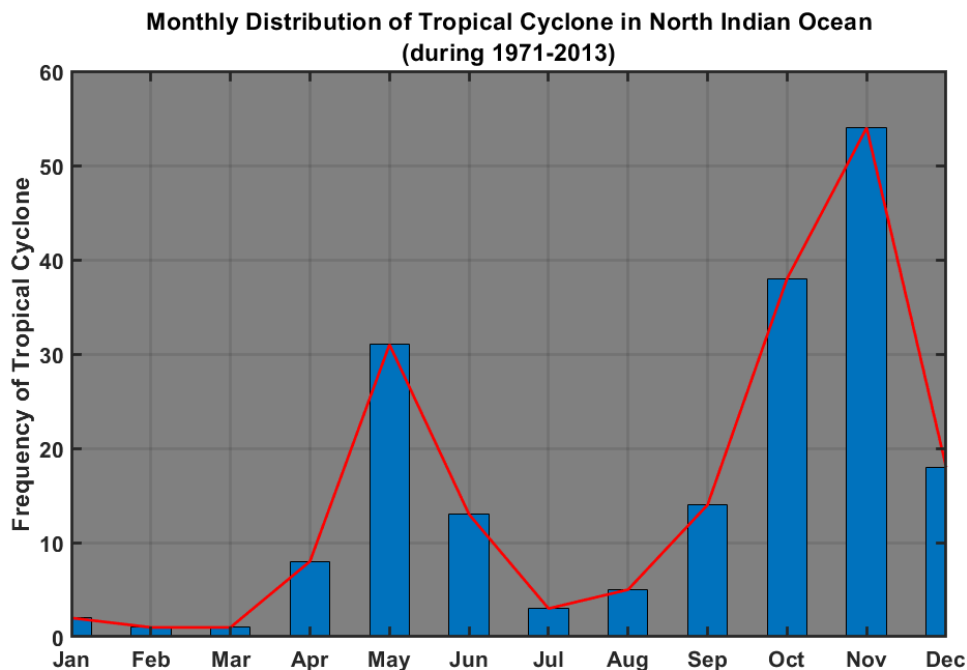


Figure 4.1 Monthly distribution of tropical cyclone in North Indian Ocean during 1971-2013 (Nath et al., 2015)

An yearly average of five or six cyclone events with 35 knots or more (Singh et al., 2001) occur, with 21 cyclones of Category 3 (96-112 knot). Since the establishment of Indian geostationary satellites in April 1982 (Hoarau and Chalonge, 2010) just five cyclones have been generated in the Arabian Sea. Storms of Category 4 and 5 (with about 113 knot or more) did not show any increase in frequency in the 1980's. Even though the number of active cyclones has increased during the 1990's and 2000's, the frequency of very intense cyclones has not increased over several decades (Hoarau and Chalonge, 2010). Although the northern Indian Ocean has a relatively low rate (about 4-5%, Singh, 2010; Ramsay, 2017) of cyclone occurrence relative to the global total (Ramsay, 2017), this region is one of the most vulnerable in the world in terms of potential damage (Peduzzi et al., 2012). Most storms in the Arabian Sea tend to be small and dissipate quickly; however, Super Cyclone Gonu in 2007 is an example of an extremely rare event of a direct cyclone landfall along the coastal areas in the Gulf of Oman (as shown in Figure 4.2).

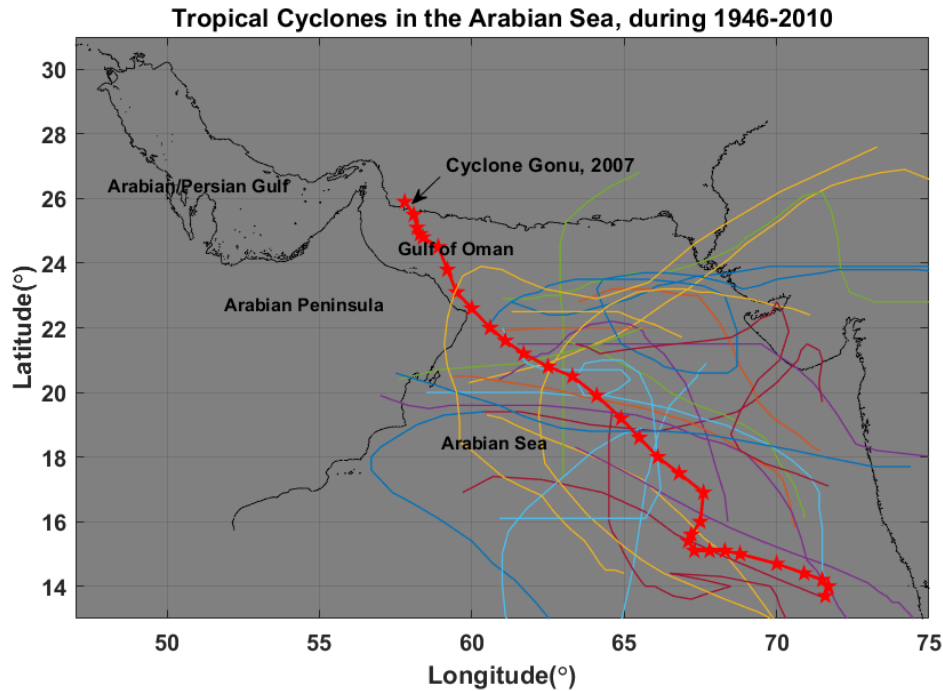


Figure 4.2 Tracks of tropical cyclones in the Arabian Sea, during 1946-2010.

Cyclone Gonu seriously affected the coastal areas of Oman, Iran and the UAE. The storm resulted in 50 deaths, 27 persons missing and an estimated \$4 billion of property damage in Oman, 28 deaths and \$216 million damage in Iran; and at least ten people reported missing in UAE (Al-Maskari, 2010). In addition, a peak rainfall amount of about 900 mm was recorded during Gonu and led to flash floods (Wadi flooding) and massive beach erosion (Muscat coastline) (Fritz et al., 2010) in the low-lying areas and coastal roads of Oman, UAE and Iran (Al-Maskari, 2010, Tyagi et al., 2010). It is the costliest extreme weather event ever to have affected the coastal area of Oman, as well as near Gulf countries (Iran and UAE) (Najar and Salvekar, 2010). Thus, the understanding, prediction and evaluation of cyclones in the region have acquired a greater importance.

Numerical modeling systems have been used to evaluate the impacts of Cyclone Gonu. Fritz et al. (2010) used the ADvanced CIRCulation (ADCIRC) model to investigate a peak storm

surge distribution trend of Cyclone Gonu. They found that it was a similar peak surge distribution with the observations of 2004 Indian Ocean Tsunami. The Weather Research and Forecasting-Nonhydrostatic Mesoscale Model (WRF-NMM) modeling system was developed to simulate the pre-monsoon Cyclone Gonu (Pattanayak and Mohanty, 2010) and the model reproduced most of the features of the cyclone. Dibajnia et al. (2010) provided a brief study of cyclone wave climate response for the Oman Sea, using the WAVAD wave model (Resio and Perrie, 1989). They showed a depiction of risk for coastal communities in the Gulf, with maximum offshore design significant wave height of 8.8 m along the Iranian coastline. To evaluate model performance and sensitivity, Vidale et al. (2010) addressed that a model resolution was not important factor to represent the spatial distribution of cyclone storm track densities, but a storm intensity shows more sensitivity to resolution. In addition, the DGMANs (Directorate General of Meteorology and Air Navigation) Numerical Weather Prediction (NWP) model was used to investigate track forecast, cyclone intensity, and associated rainfall during the Gonu period (Al-Yahyai and Al-Busaidi, 2009).

Several studies show that global warming and climate change would likely result in sea surface temperature (SST) increases due to the increasing intensity of tropical cyclones (Tsutsumi 2002; Webster et al., 2005) associated with climate change. Sea surface temperature (SST) plays an important role in the inter-annual variability of tropical storm intensity and frequency (Vitart et al., 1999). Krishna and Rao (2009) studied the SST increase during Cyclone Gonu, compared with satellite microwave measurements. They found that SST increases in advance of 1-2 days before significant cyclone intensification (Sun et al., 2006; Kafatos et al., 2006). Furthermore, Piontkovski and Al-Azri (2010) mentioned a possible response to Cyclone Gonu by phytoplankton communities, as a consequence of localized mixing of upper layers

(Sriver and Huber, 2007). In addition, Ghammari et al. (2015) predicted that about 25,000 cubic meters of sediment along the east coast of Oman was transported southward due to Gonu, using COSMOS simulations.

The purpose of this chapter is to use the hydrodynamic (Delft3D-FLOW) and coupled (Delft3D-FLOW+WAVE) models (Deltares, 2011a,b) to investigate the effects of Cyclone Gonu, with an emphasis on the hydrodynamics, salinity and temperature advection due to this event. In addition, possible variations in the track and size of Gonu will be explored to determine the possible impacts in the Gulf.

4.2 Super Cyclone Gonu (2007)

Super Cyclone Gonu was the strongest Cyclone on record over the last 100 years in the Arabian Sea (Najar and Salvekar, 2010). Starting as a tropical disturbance southwest of Mumbai in India on May 31st, Gonu released 900 mm of rainfall during June 5th and had maximum sustained winds of about 130 km/h and maximum significant wave height of approximately 4.2 m at Chabahar Bay area in Iran, finally dissipating on June 8th around the Makran, Iran coast along the Gulf of Oman (Najar and Salvekar, 2010), as shown in Figure 4.3. Cyclone Gonu had reached Category 5 strength, with 1 min sustained winds of 263 km/h and center pressure of 909 mbar, on June 4th while located about 475 km east of Masirah Island off the coast of Oman. It then gradually weakened due to cooler water temperature and drier air from the Arabian Peninsula (Fritz et al., 2010).

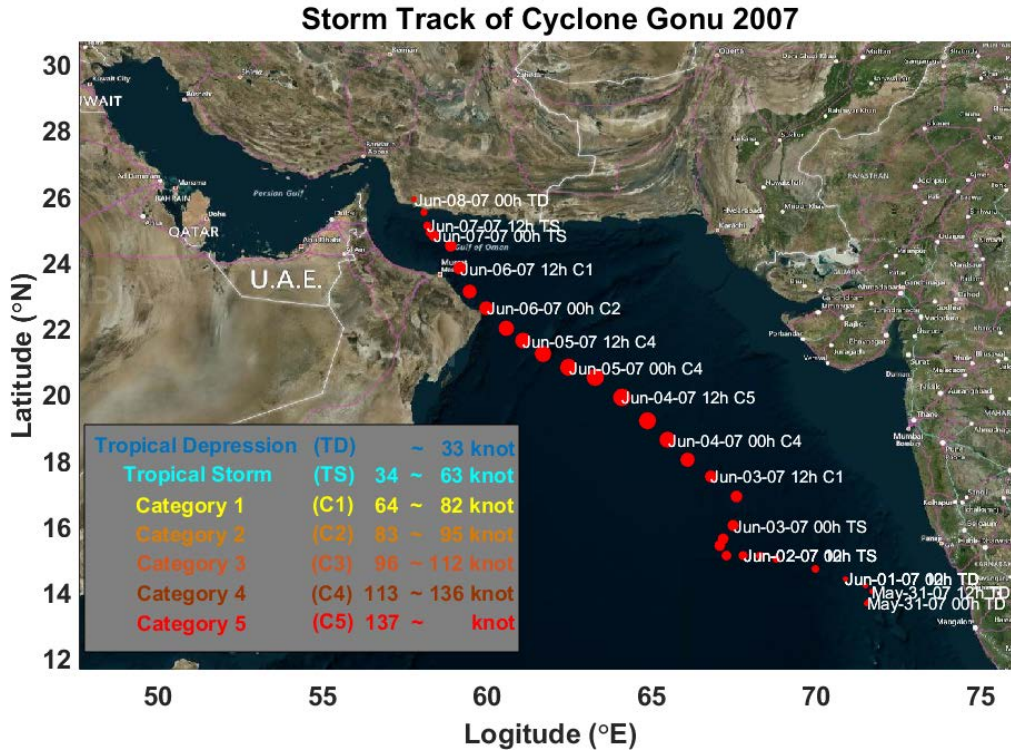


Figure 4.3 They cyclone track and intensity scale of Gonu (2007)

In addition to the damage detailed earlier, Super Cyclone Gonu resulted in storm surge of 5 m (Fritz et al., 2010) and a significant wave height of 4 m at Chabahar on the south coast of Iran (Dibajnia et al., 2010). Furthermore, Cyclone Gonu had the potential to affect the Gulf environment in ways which are connected to the hydrodynamic characteristics. Haider et al. (2008) investigated possible connections between the sea surface temperature of the Arabian Sea and the intensification of tropical cyclones, and determined that their intensity correlated with the surface temperature, which is of significant importance at warmer and deeper ocean mixed layers (Chang and Madala, 1980). Krishna and Rao (2009) found that the SST increased prior to maximum intensification of a cyclone in the region (around before 1-2 days, Sun et al., 2006 and Kafatos et al., 2006), and also found that high SST were typically located along the right side of the storm track. After the passage of Gonu, high salinity events in the interior of Sea of Oman

(Wang et al., 2013) were detected, posing a threat to marine organisms. Extreme weather conditions are likely to have a significant impact on the Gulf hydrodynamics, transport of salinity and temperature and storm surge flooding hazard (Fritz et al., 2010). The shallow regions (evidenced by damage to desalination plants in Oman, Al-Shaibany, 2010) in the Gulf might be most vulnerable to such an extreme weather event.

Specifically, Cyclone Gonu affected the coral community in the Gulf of Oman. Taylor (2010) had determined that the intense wave force and storm water runoff during Gonu likely attributed to a significant destruction of coral area, and predicted that a long-term recovery time (approximately a decade) would be required to restore habitats to their environmental condition prior to the cyclone. Piontkovski and Al-Azri (2010) showed that the cyclone winds led to local mixing of the upper layers, reducing the SST (Srifer and Huber, 2007). The cyclone thus caused physical, chemical and biological changes in the upper layer of the ocean.

4.3. Modeling System of Cyclone Gonu (2007)

4.3.1 Model Description

The Delft3D system with both FLOW and WAVE models were used to simulate the hydrodynamic features and wind-driven wave effects, respectively. The validated FLOW model (described in Chapter II) is employed to simulate the effect of Cyclone Gonu, and created the restart file which represents the hydrodynamic conditions at the last time step of a previous sub-simulation (from May 31st, 2007) as an initial sea state for the Gonu simulation. The WAVE model (Deltares, 2011b), based on the SWAN (Simulating WAVes Nearshore) model (Booij and Holthuijsen 1999), is a third-generation spectral wave model used to investigate wind-wave growth, wave-current interaction, dissipation and depth-induced breaking. When both modules

are coupled in the modeling system, they are dynamically linked; the FLOW module sends the hydrodynamic features (current, water levels, wind, and any changes in topography if sediment

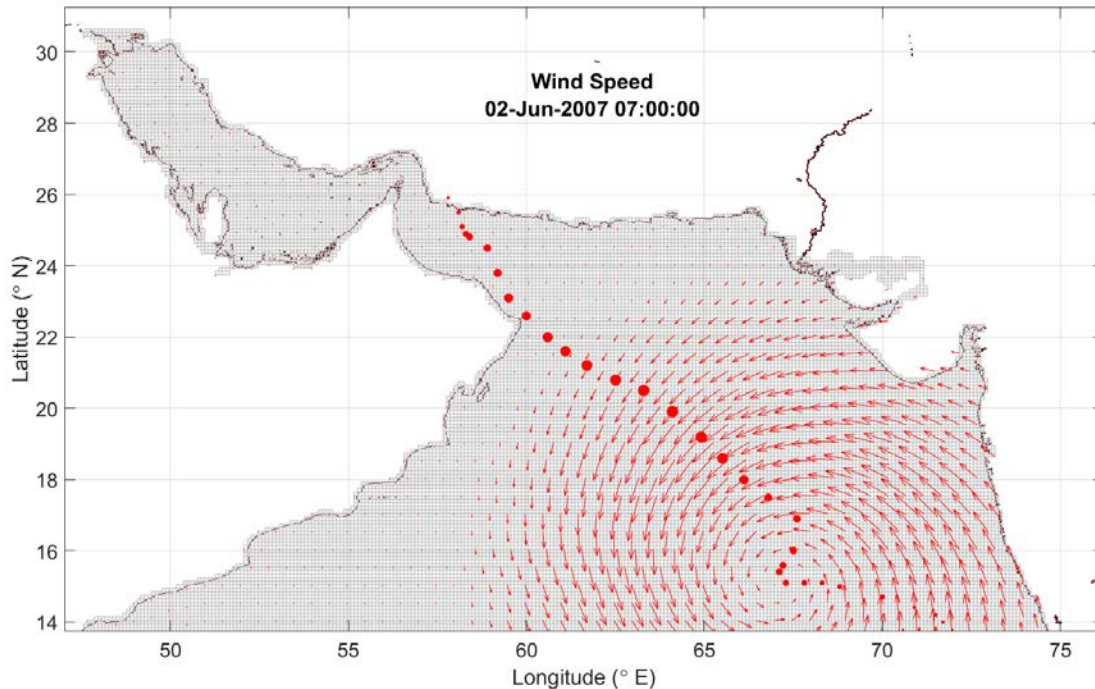


Figure 4.4 Computed winds field of Cyclone Gonu 2007 on the Spiderweb grid system.

transport is activated) to the WAVE module, and the WAVE module transmits the wave information (wave orbital velocity, wave forcing via dissipation or radiation stress gradients) to the FLOW module. It can be coupled to Delft3D-FLOW by exchanging the data via a communication file, which include and update the latest results data of the FLOW and WAVE computations to account for both the effect of waves on flow characteristics and the effect of flow on wave. Both Delft3D-FLOW and FLOW+WAVE models were simulated for the 8 days of the Cyclone Gonu period from May 31st to June 8th, 2007.

4.3.2 Wind and Pressure in the Modeling

The best estimation (Wang and Zhao, 2008) of Cyclone Gonu track and intensity on a 6-hourly basis is from Unisys Weather (http://weather.unisys.com/hurricane/n_indian/), where the data is from the Joint Typhoon Warning Center of USA-JTWC). Two different wind fields were applied for this study;

- (i) NCEP (National Centers for Environmental Prediction) Re-analysis wind and pressure data at every 6-hour interval.
- (ii) Cyclone Gonu (2007) wind and pressure fields (UNISYS, 2017) with 6-hour interval.

Table 4.1 shows the observed cyclone track and development stage. A “tropical cyclone tool” included in Delft Dashboard developed by Deltares (Delft Dashboard, 2013) was used to reproduce atmospheric conditions (winds and pressure fields) during the cyclone period. With spatially and temporally varying wind and atmospheric pressure, Cyclone Gonu (2007) is generated and propagated using a moving polar co-ordinate “Spiderweb” grid along the storm track, as shown in Figure 4.4. It is based on parameterizations of the wind profile (Holland, 2008; Holland et al., 2010) using central pressure, maximum winds and R_{max} (Vickery and Wadhera, 2008).

Table 4.1 Tracking information of Cyclone Gonu 2007 (data from <http://weather.unisys.com>) *TD: Tropical Depression, TS: Tropical Storm, C1-5: Cyclone 1-5.

Time (2007)	Lat (°)	Lon (°)	Wind (knots)	Press (mb)	Scale	Time (2007)	Lat (°)	Lon (°)	Wind (knots)	Press (mb)	Scale
05/31 00h	13.65	71.55	15	1006	TD	06/04 00h	18.60	65.50	135	933	C4
05/31 06h	13.70	71.60	15	1006	TD	06/04 06h	19.20	64.90	145	904	C4
05/31 12h	14.00	71.70	15	1006	TD	06/04 12h	19.90	64.10	140	914	C5
05/31 18h	14.20	71.50	15	1006	TD	06/04 18h	20.50	63.30	135	898	C5
06/01 00h	14.40	70.90	30	1006	TD	06/05 00h	20.80	62.50	125	904	C4
06/01 06h	14.70	70.00	30	1000	TD	06/05 12h	21.20	61.70	115	916	C4
06/01 12h	15.00	68.80	30	1000	TD	06/05 18h	21.60	61.10	110	937	C4
06/01 18h	15.10	68.30	40	1000	TD	06/06 00h	22.00	60.60	90	941	C3
06/02 00h	15.10	67.80	45	994	TS	06/06 06h	22.60	60.00	90	956	C2
06/02 06h	15.10	67.30	55	989	TS	06/06 12h	23.10	59.50	75	956	C2
06/02 12h	15.40	67.10	55	982	TS	06/06 18h	23.80	59.20	65	967	C1
06/02 18h	15.60	67.20	60	982	TS	06/07 00h	24.50	58.90	55	974	C1
06/03 00h	16.00	67.50	65	978	TS	06/07 06h	24.80	58.40	45	982	TS
06/03 06h	16.90	67.60	70	974	C1	06/07 12h	24.90	58.30	35	989	TS
06/03 12h	17.50	66.80	95	970	C1	06/07 18h	25.10	58.20	25	996	TS
06/03 18h	18.00	66.10	120	952	C2	06/08 00h	25.50	58.10	15	1002	TD

Table 4.2 Estimated size (Radius, km) of Cyclone Gonu, from Tyagi et al. (2011).

Time	Averaged Size of Cyclone Gonu (km)	Time	Averaged Size of Cyclone Gonu (km)
Jun. 2, 12:00	644	Jun. 5, 03:00	637
Jun. 3, 03:00	736	Jun. 5, 12:00	618
Jun. 3, 12:00	499	Jun. 6, 03:00	445
Jun. 4, 03:00	671	Jun. 6, 12:00	689
Jun. 4, 12:00	911	Jun. 7, 03:00	524
Range	500 to 900	Average	637

Table 4.2 is the mean radius of Cyclone Gonu (Tyagi et al., 2011) during June 2nd to 7th, 2007.

Tyagi et al. (2011) estimated the maximum mean radius as 911 km during the super cyclone stage, as well as an average radius of 637 km over the cyclone period. In addition, Figure 4.5 shows the satellite image of Cyclone Gonu on June 4th 12:00-13:00 from the Naval Research Laboratory (http://www.nrlmry.navy.mil/sat_products.html). Based on the eye of cyclone in Figure 4.5, estimates of the storm radius range from about 300 km (east of the eye) to about 990 km of radii (southwest of the eye). In this study, we adopted a 700 km radius of cyclone in a circular wind grid.

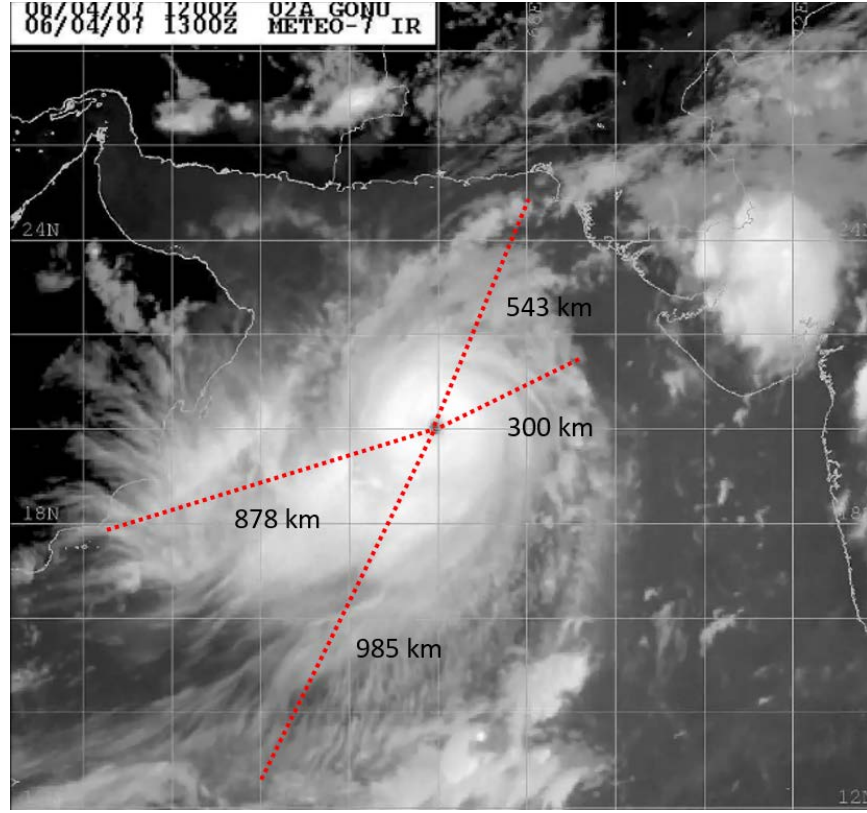


Figure 4.5 Satellite image of Cyclone Gonu and estimated radii.

4.4 Results

4.4.1 Water Level (IHO Tide Stations)

A total of six stations (as shown in Figure 4.6) were used to compare the water elevation with the model predictions on the Gulf coast of Oman and Iranian side (near the Strait of Hormuz). The tidal data of these stations were obtained from the International Hydrographic Office (IHO, 1979) database. Root mean square error (RMSE, Eq. 4.1) and correlation coefficient (r , Eq. 4.2) were calculated and showed the good agreement.

$$RMSE = \sqrt{\frac{\sum_{i=1}^n (P_i - O_i)^2}{n}} \quad \text{Eq.4.1}$$

$$r = \frac{n(\sum PO) - (\sum P)(\sum O)}{\sqrt{[n\sum P^2 - (\sum P)^2][n\sum O^2 - (\sum O)^2]}} \quad \text{Eq.4.2}$$

where, n = total number of output data; P_i = predicted model value; O_i = observed field value.

Figure 4.6 shows the comparison of predicted and measured water level change at the six stations for the FLOW model and FLOW+WAVE model, respectively.

Table 4.3 RMSE and r comparisons across 6 tide stations for FLOW and FLOW+WAVE models.

Station	FLOW		FLOW+WAVE	
	RMSE	r	RMSE	r
Wudam	0.256	0.959	0.462	0.892
Fujaurah	0.276	0.919	0.276	0.919
Khoralfakkean	0.207	0.962	0.207	0.962
Littlequionisla	0.188	0.965	0.188	0.965
Khorkwai	0.251	0.966	0.251	0.966
Bandarabbas	0.191	0.954	0.191	0.954

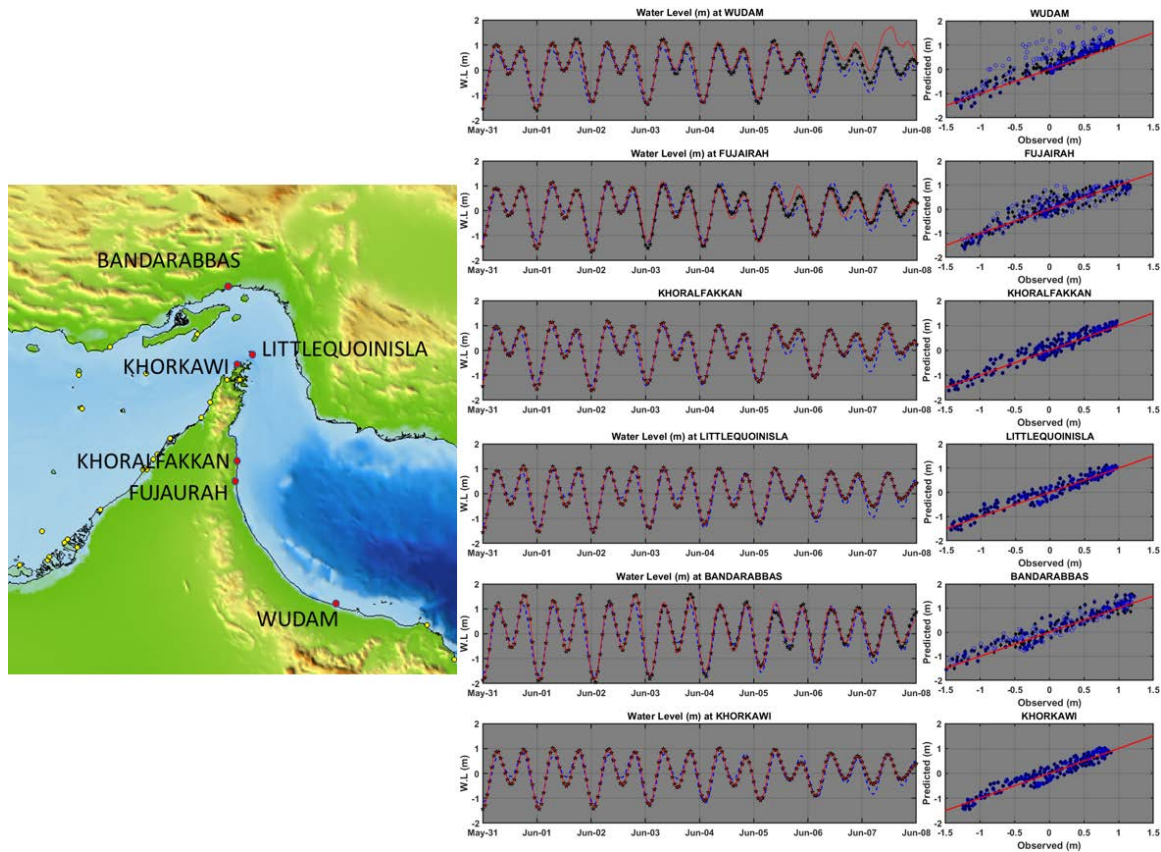


Figure 4.6 (Left) Map locations of tide stations. (Right) Comparisons of water level changes at the 6 tide stations; model results in black (FLOW mode) and red (solid, FLOW+WAVE model) and measured data of station in blue (dashed).

The comparisons of water level change show good agreement between the tidal signals and model predictions during the cyclone event. All stations display reasonably good RMSEs, positive correlation in both FLOW and FLOW+WAVE model (as shown in Table 4.3). Between both models, most of stations showed the identical results of RMSE and r , but the water level at Wudam tide-station was somewhat overestimated in the later stage of the cyclone event. It is likely that the location of station against the cyclone circulation, geological features in the Gulf of Oman and wind-driven wave and current are response for difference with the tidal signal.

4.4.2 Wave Height

To examine the effect of cyclone on wave height, salinity and temperature, the winds and meteorological information associated with Cyclone Gonu were deactivated (denoted as the case

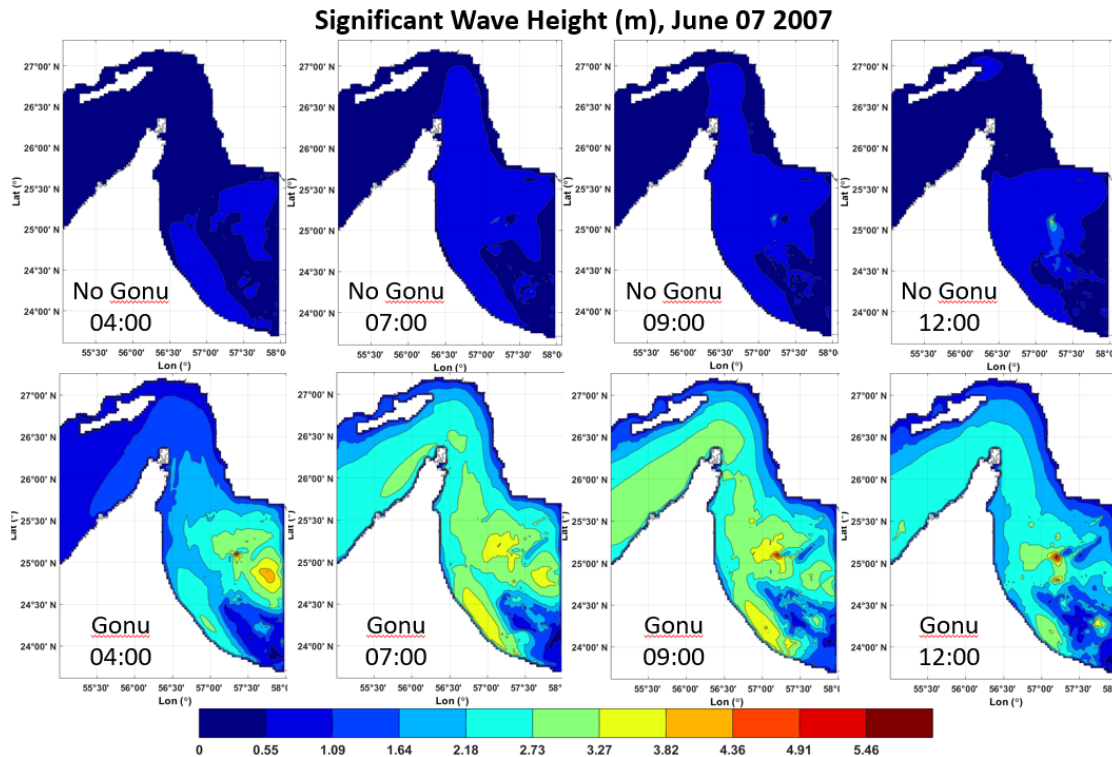


Figure 4.7 Results of significant wave height (m) between Off-Gonu and On-Gonu model results.

“Off-Gonu”), and then simulated with same time period. Figure 4.7 shows the comparison of significant wave height between the cases of ‘Off-Gonu’ and ‘On Gonu’ at the Gulf of Oman and Strait of Hormuz. The highest significant wave height is around 6-7 m, which occurs in the deepest part of the Gulf of Oman. The depth gradients, circulation and wave-current interaction due to the cyclone may be attributed to the high significant wave height in the middle Gulf of Oman (Fan et al., 2009), as shown in Figure 4.8. Spatial and temporal variations of significant wave height at the Gulf of Oman/Strait of Hormuz were presented with the current vectors

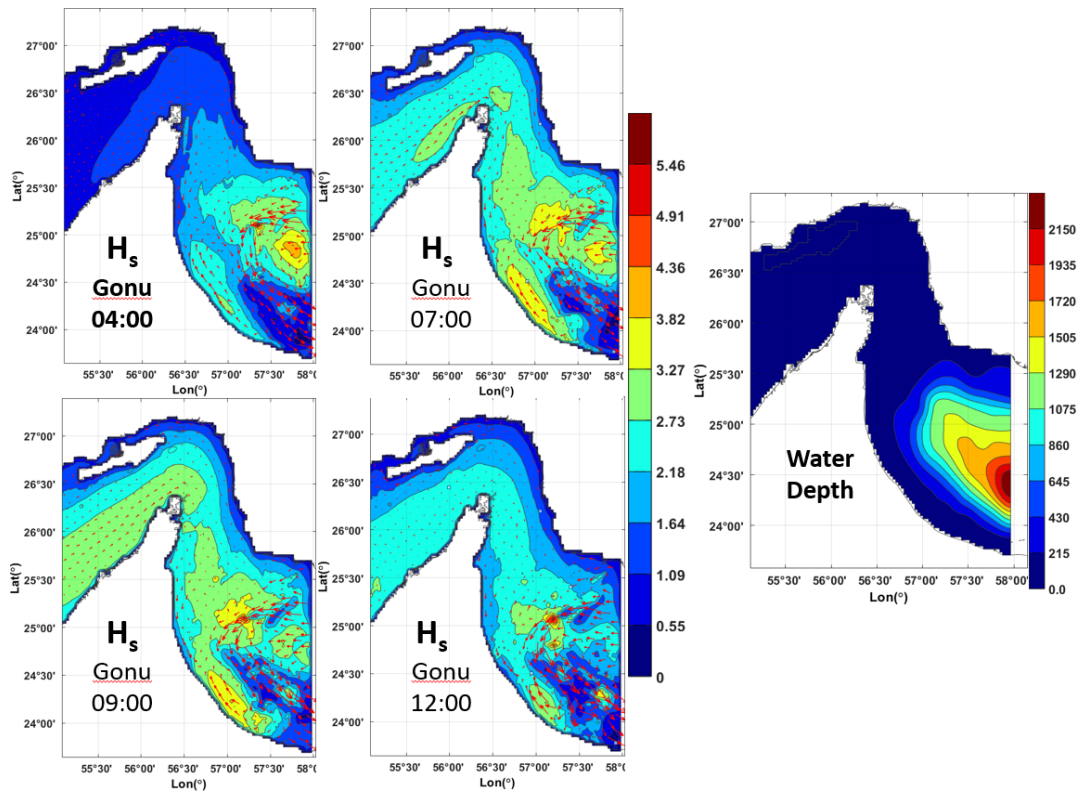
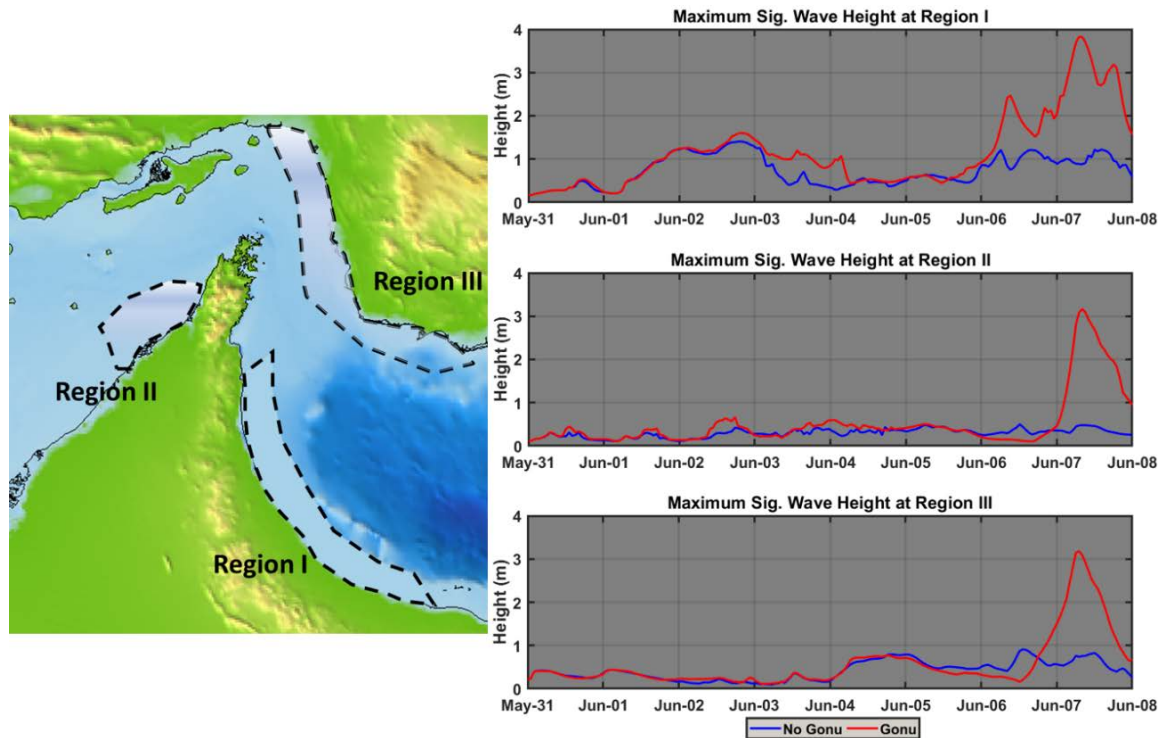


Figure 4.8 (Left) Significant wave height (m) and currents (vector, m/s). (Right) Water depth in the Gulf of Oman.

Table 4.4 Maximum and mean significant wave height at the 3 regions (representing; region I: coast of Oman, region II: coast of UAE, region III: coast of Iran).

	Max. Sig. Wave Height (m)			Mean. Sig. Wave Height (m)		
	Region I	Region II	Region III	Region I	Region II	Region III
Off Gonu	1.409	0.503	0.909	0.729	0.297	0.418
Gonu	3.826	3.161	3.181	1.162	0.526	0.574

overlaid in Figure 4.8. Figure 4.9 shows the significant wave height estimated in the three different regions (Region I, II, III) throughout the Cyclone Gonu (2007). Table 4.4 presents the comparison of maximum and mean significant wave height during the Gonu period, compared with the case ‘Off-Gonu’.



The maximum significant wave height of approximately 3.16-3.83 m was achieved in the nearshore areas of the Gulf of Oman, UAE and Iran. It has been attributed to the strong winds

during June 4th to 7th, reaching to 90-145 knots (166-268 km/h), and produced the high risk and vulnerability along the coast from the eastern Gulf of Oman, northeast of UAE and Iranian side near the Strait of Hormuz. From the several studies, a maximum significant wave height of 4.2 m was measured at Chabahar, located in the south of Iran (Dibajnia et al., 2010), and the high water levels of 25 locations in the Gulf of Oman have been surveyed with 2-5 m wave height during the Gonu event (Fritz et al., 2010). Although these places were located outside of our study area, the model results provided the similar depiction of risk and extreme values for coastal communities in the Oman, UAE and Iran.

4.4.3 Salinity and Temperature

Figures 4.10 to 4.13 show the aftermath of Cyclone Gonu on the surface salinity/temperature differences. Figures 4.10-13-a's are the initial phases of salinity and temperature differences for the FLOW and FLOW+WAVE models. In Figures 4.10 and 4.11, water mass exchanges driven by the strong wind conditions are evident throughout the Strait of Hormuz. In contrast with the high salinity of most of the southern Gulf area (usually 39-43 ppt), the enormous inflows of cooler, fresher water from the Indian Ocean have disturbed the salinity field in southern Gulf, and caused local changes of approximately ± 2 ppt in salinity and ± 4 °C in temperature. The sea surface temperature reduced about 3-4 °C over the Arabian Sea during and after the passage of Gonu, likely due to the strong cyclone wind and upwelling (Wang and Zhao, 2008). Wang et al. (2013) have investigated the variability of salinity and temperature using several mooring sensors that show substantial changes response to the Cyclone Gonu. They found that the largest changes of salinity and temperature with more than 2°C and 1 ppt, respectively, after the passage of Gonu on June 6, at the Gulf of Oman.

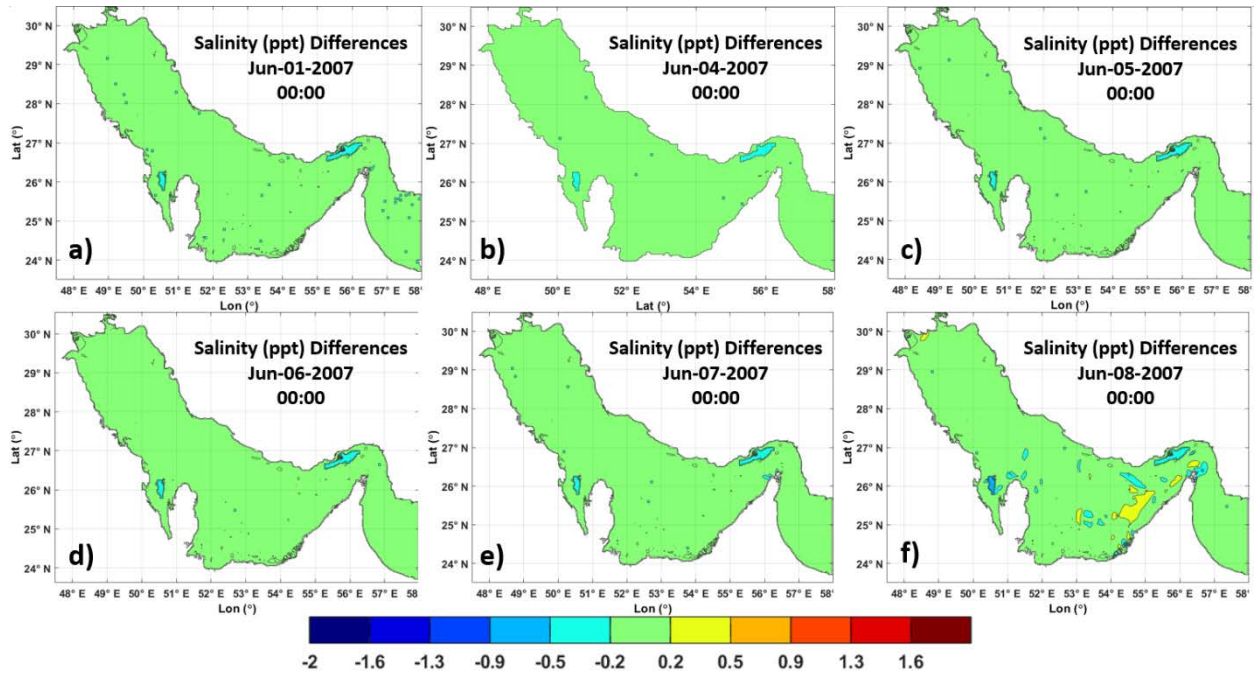


Figure 4.10 Surface salinity differences (ppt) by the Gonu in FLOW model results a) June/1, b) June/4, c) June/5, d) June/6, e) June/7, f) June/8.

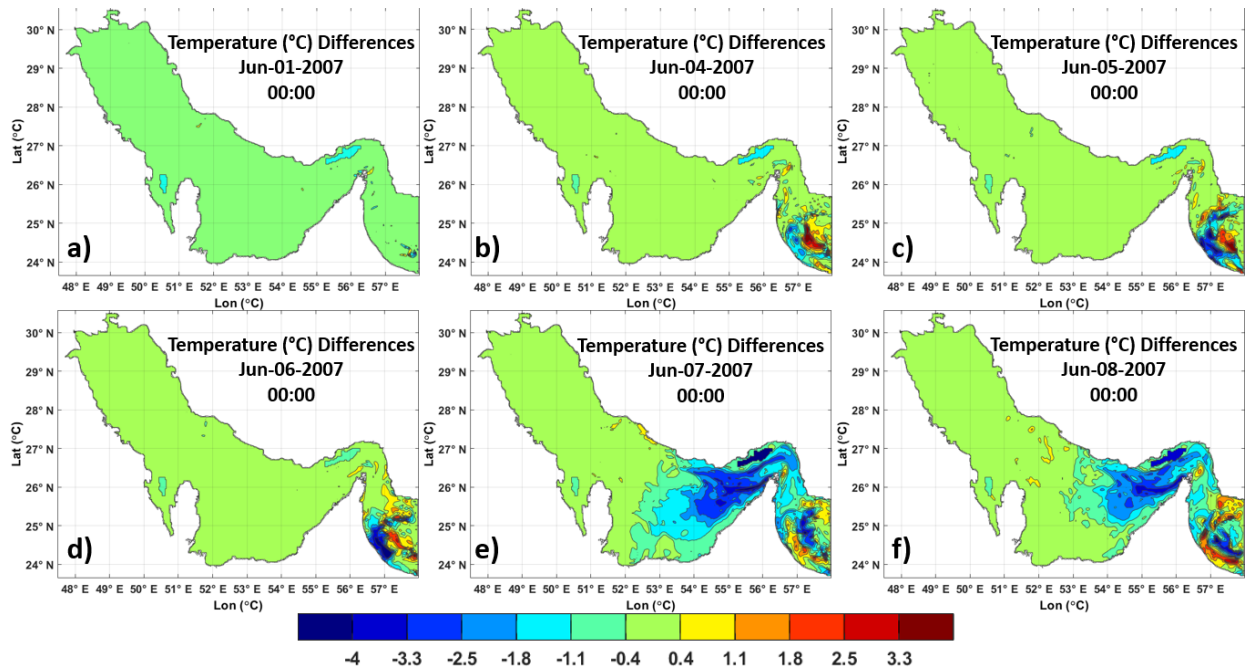


Figure 4.11 Surface temperature differences (°C) by the Gonu in FLOW model results a) June/1, b) June/4, c) June/5, d) June/6, e) June/7, f) June/8.

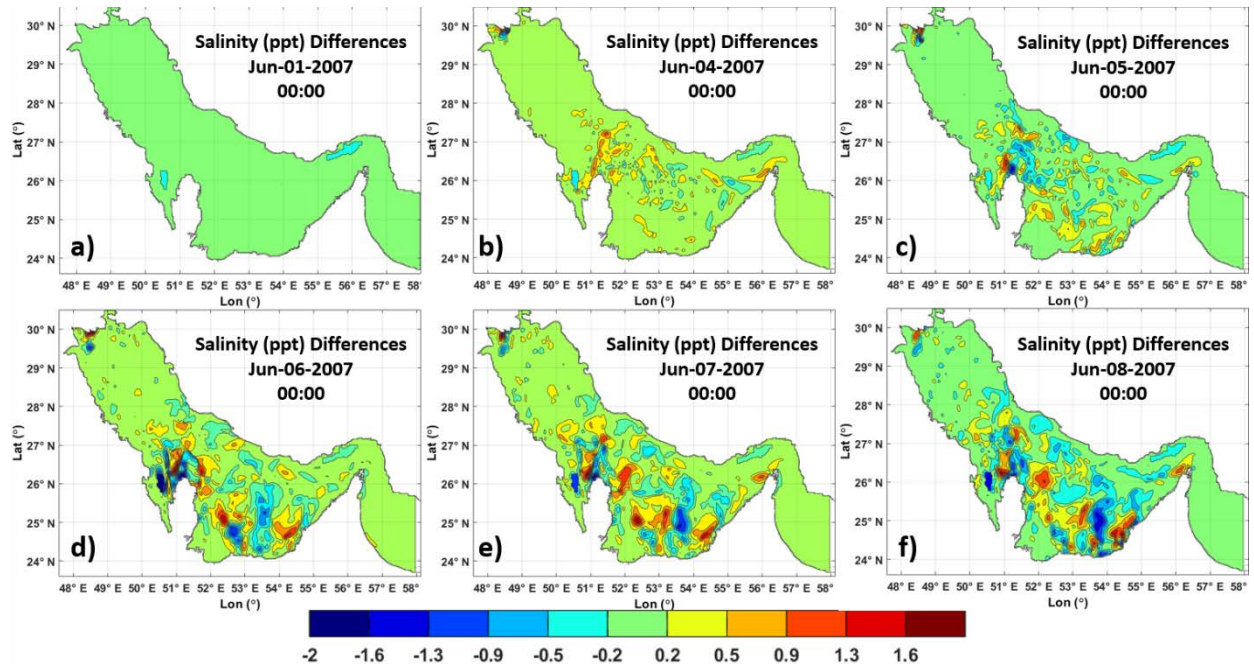


Figure 4.12 Surface salinity differences (ppt) by the Goni in FLOW+WAVE model results a) June/1, b) June/4, c) June/5, d) June/6, e) June/7, f) June/8.

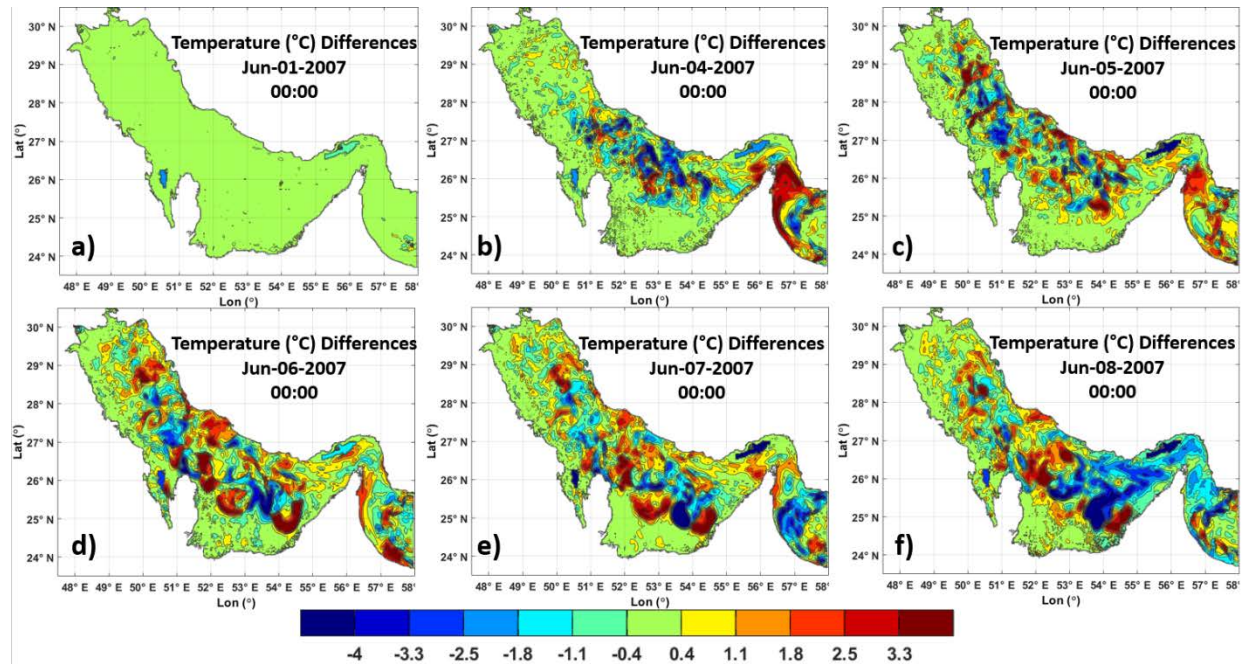


Figure 4.13 Surface temperature differences (°C) by the Goni in FLOW+WAVE model results a) June/1, b) June/4, c) June/5, d) June/6, e) June/7, f) June/8.

However, there are limitations to the use historic studies; in addition there has been little study of the effect of Gonu on the salinity and temperature changes well inside the Strait of Hormuz and in the Gulf itself. For comparison, the temperature in upper ocean mixed layer is decreased about 6 °C by cyclones in the Gulf of Mexico (Bender et al., 1993), and maximum decrease of 9 °C (Sakaida et al., 1998) was observed using satellite SST images for the area near Tohoku, Japan, due to the ocean surface wind stress of strong cyclones. Bruneau et al. (2018) investigated the effects of wave-induced processes driven by a cyclone wind; they determined that the presence of waves enhanced cooling by 1.5-2 °C due to increased mixing and SST cooling by whitecapping dissipation. Figure 4.11 shows the large variations of temperature attributed to the inflows driven by the Cyclone Gonu in the Strait of Hormuz within the middle and southern portions of the Gulf. In Figures 4.12 and 4.13, on the other hand, the coupled model shows more dynamic variations by wind-driven waves than the results of FLOW model alone. The wind drag of cyclone can generate a strong current, wave and turbulence mixing in upper ocean layer. During the cyclone, these are response for the temperature variations (Toffoli et al., 2012). The cyclone force is attributed to the dynamic cooling and dissipative heating processes at the surface

Table 4.5 Mean salinity and temperature at surface and bottom from the models' results.

	Entire Gulf							
	Salinity (ppt)				Temperature (°C)			
	FLOW		FLOW+WAVE		FLOW		FLOW+WAVE	
	No Gonu	Gonu	No Gonu	Gonu	No Gonu	Gonu	No Gonu	Gonu
Surface	38.32	38.31	38.32	38.33	28.38	28.34	27.63	27.68
Bottom	38.47	38.46	38.43	38.44	24.13	24.10	24.15	24.17
	Gulf of Oman / Strait of Hormuz							
	No Gonu	Gonu	No Gonu	Gonu	No Gonu	Gonu	No Gonu	Gonu
Surface	36.84	36.83	36.83	36.83	28.38	27.94	27.47	27.6
Bottom	37.00	37.00	36.97	36.99	24.13	23.6	23.66	23.6

layer (Liu, 2000), and it then can affect the transport of heat flux and thermocline gradient (Buetti et al., 2014). The cyclone event is particularly likely to have a major impact on mixing dynamics and transport by the surface forcing (wind stress, heat flux, surface wave). Table 4.5 provides a summary of the mean salinity and temperature during Cyclone Gonu in both FLOW and FLOW+WAVE modeling system. The coupled model has a mean decrease $\sim 0.9^{\circ}\text{C}$ of surface temperature in entire Gulf and the Gulf of Oman/Strait of Hormuz.

4.5 Sensitivity Study

A sensitivity study was performed to investigate how the model responds to different cyclone conditions. A different size of cyclone winds (radius of spiderweb) and storm track were considered to be strong influence on the potential variability in the future; salinity and temperature transport, wave height, heat flux and winds.

4.5.1 Different Sizes of Circular Wind Grid

Sugi (2010) has investigated the variability of cyclones with respect to the connection to projected climate change. It was shown that the stability of the atmospheric moisture condition due to the future warmer climate (Sugi et al, 2002; Sugi and Yoshimura, 2004), will cause a decrease in the number of tropical cyclones and weakening of tropical circulation. However, IPCC (2007) predicted that future tropical cyclones will be more intense, with higher peak wind speeds and heavy increase of rainfall. In addition, both studies have pointed out the level of improvement of the capabilities of modeling systems in depiction of the uncertainties of future cyclone predictions. Since there were a variety of scenarios for any future cyclone, different sizes (radii) of spiderweb grid (ranging from 400-1,000 km), representing the size of the cyclone, were employed to both the FLOW and FLOW+WAVE models to represent potential future cyclones,

as well as reflect the uncertainty of size estimation of cyclones. Although adjusting the radius of spiderweb grid is somewhat contentious, we considered the different radii of cyclone wind field in order to consider the variation in response in the Gulf with respect to storm size. The physical consequence for adjusting the radius leads to the spatial and temporal variations of cyclone intensities and wind speed along a storm track.

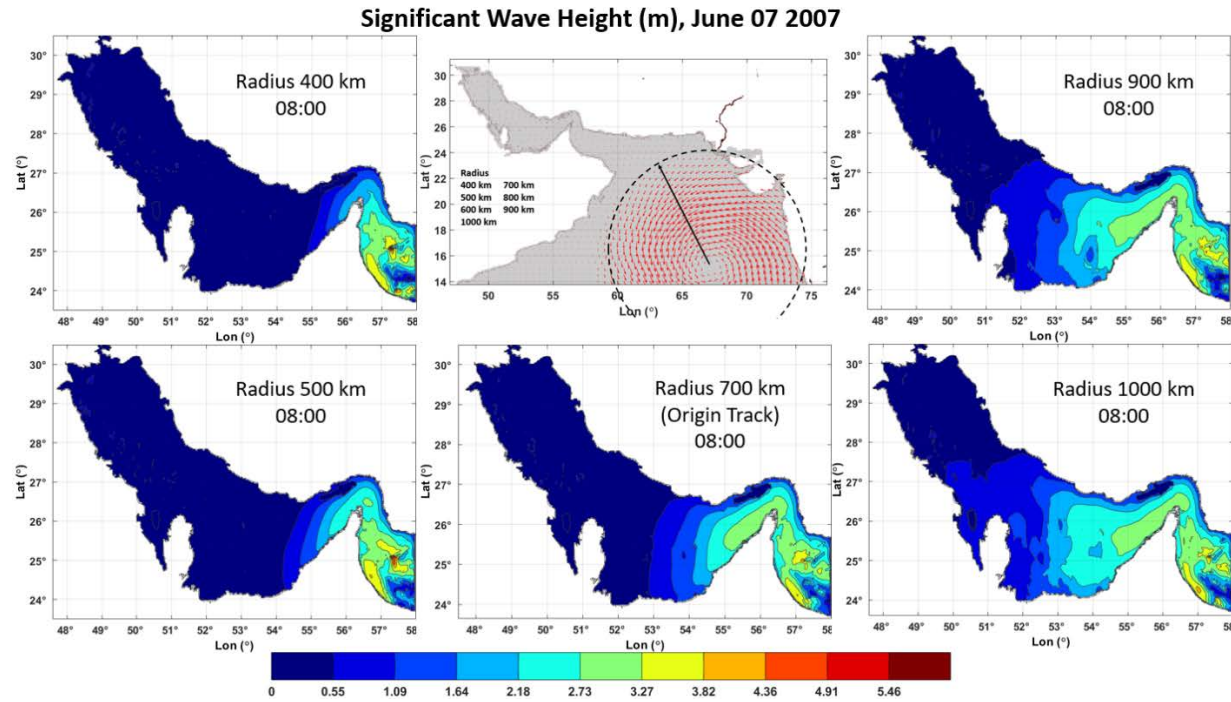


Figure 4.14 Comparison of significant wave height (m) for different radii of circular wind grid at 08:00 June 7th.

Models forced using storms with different radii have exhibited different characteristics regarding significant wave height, salinity and temperature. The spatial variation of significant wave height over the Gulf is shown in Figure 4.14, organized according to the different radii of circular wind grid. Use of different radii would likely be sufficiently indicative of various cyclone intensity in same place at same time. In particular, the largest cyclone wind field of 1,000 km radius stretched across parts of the Strait of Hormuz and extended into the middle Gulf

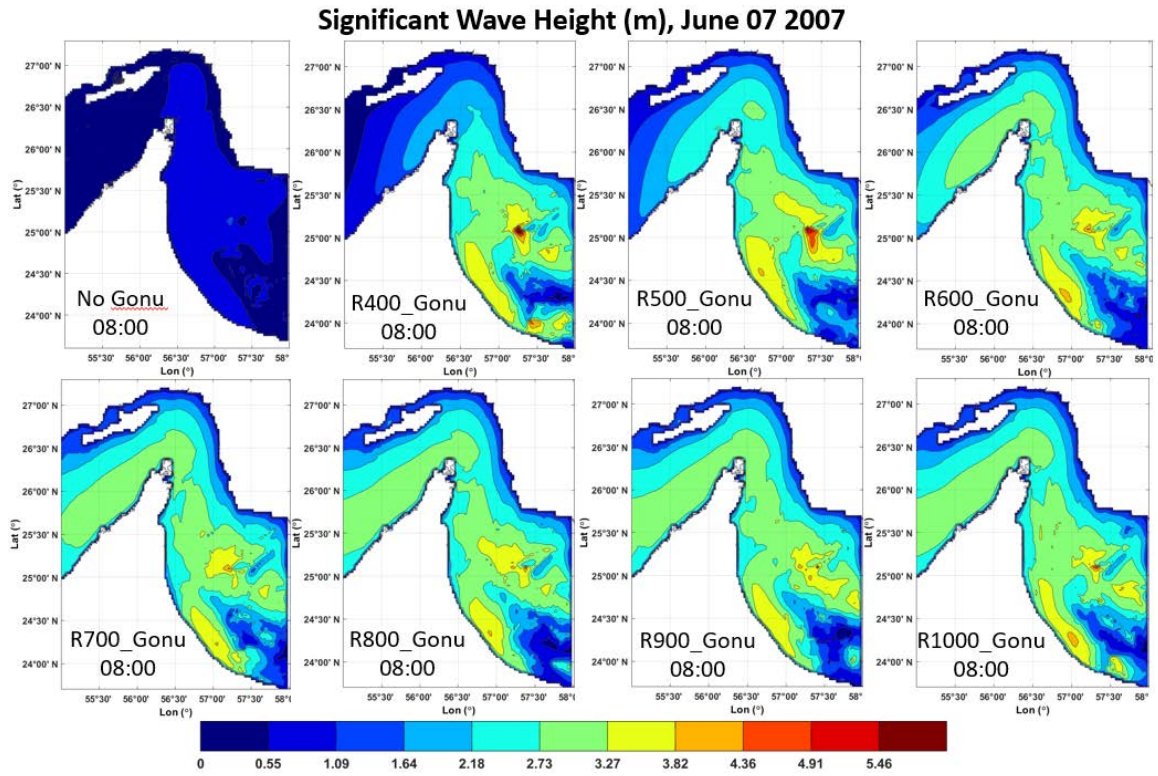


Figure 4.15 Results of significant wave height (m) at 08:00 June 7th in the Gulf of Oman and Strait of Hormuz.

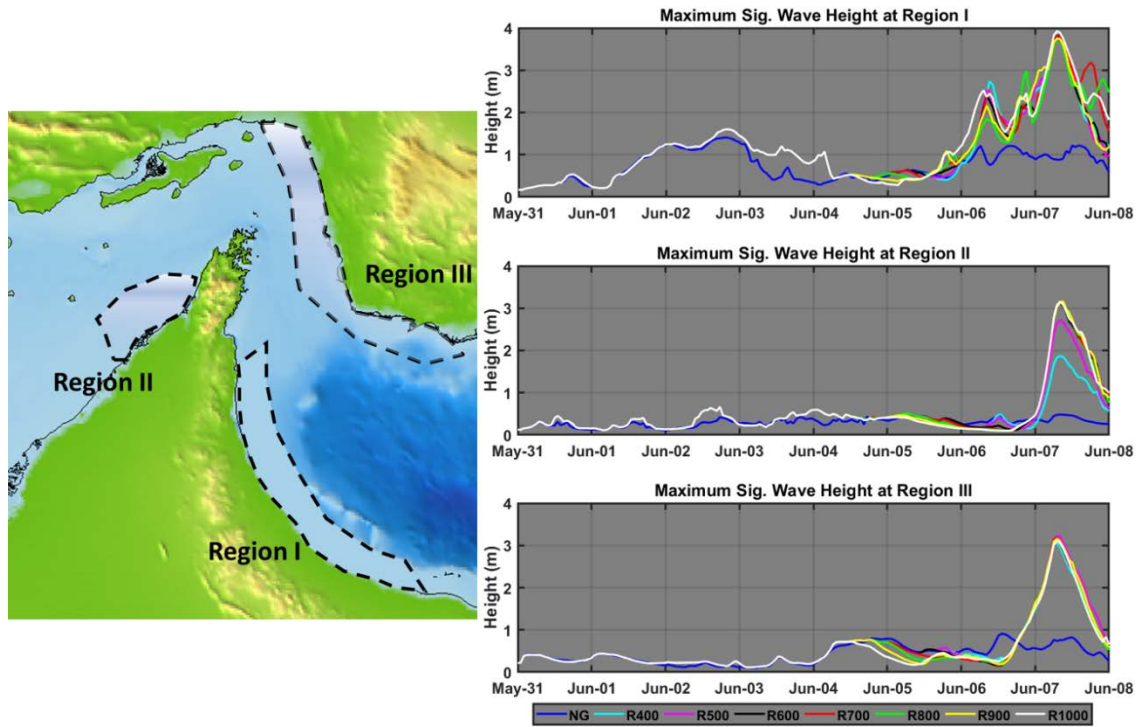


Figure 4.16 Maximum significant wave height at the 3 regions for the different radii of circular wind grid.

area. Figure 4.15 provides an indication of significant wave height distribution at 8:00, June 7th. All cyclones show high vulnerability of coastal area to extreme weather conditions. The maximum significant wave height at each region in Figure 4.16 were compared, using the model results from different sizes of circular wind grid. Despite the difference in cyclone sizes, similar results were estimated at Regions I (about 4 m) and III (about 3 m). However, the maximum significant wave height (2-3 m) at Region II seems to decrease with the size of wind-grid. Table 4.6 summarizes the maximum and mean significant wave height for the three regions, during Cyclone Gonu. There is no direct correlation between the size of the storm and the resulting significant wave height, but the maximum significant wave height ascertained near the coast of Oman, UAE and Iran shows high vulnerability to coastal hazards.

Table 4.6 Summary of maximum and mean significant wave height for the 3 regions, during Gonu.

Radius	Max. Sig. Wave Height (m)			Mean. Sig. Wave Height (m)		
	Region I	Region II	Region III	Region I	Region II	Region III
No Gonu	1.409	0.503	0.909	0.729	0.297	0.418
R400	3.872	1.873	3.054	1.112	0.435	0.584
R500	3.832	2.713	3.223	1.113	0.492	0.605
R600	3.810	3.129	3.108	1.102	0.526	0.580
R700	3.826	3.161	3.181	1.162	0.526	0.574
R800	3.761	3.159	3.103	1.127	0.517	0.568
R900	3.745	3.164	3.158	1.107	0.516	0.568
R1000	3.922	3.157	3.107	1.170	0.509	0.545

The surface salinity/temperature differences from the FLOW model results, are shown in Figures 4.17 and 4.18, respectively. Surface salinity is not significantly affected by the size of cyclone wind, but the models with larger radii (900 or 1,000 km) have led to more variations within the Strait of Hormuz and northern part of Qatar peninsula. While, the models bring about significant changes of surface temperature, with a size of cyclone winds. As the storm radius increases, the larger variations are seen in the Strait of Hormuz, middle and southern Gulf.

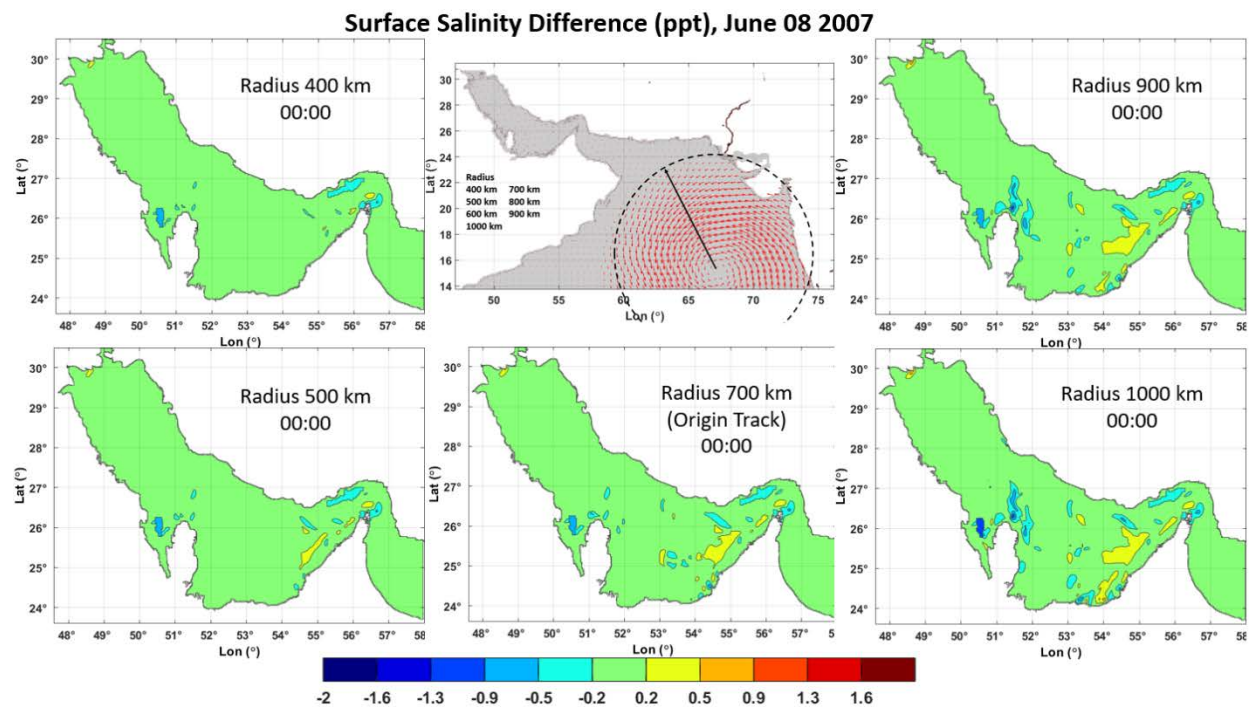


Figure 4.17 Surface salinity differences (ppt) by the different radii of circular wind grid in FLOW model results at 00:00 June 8th.

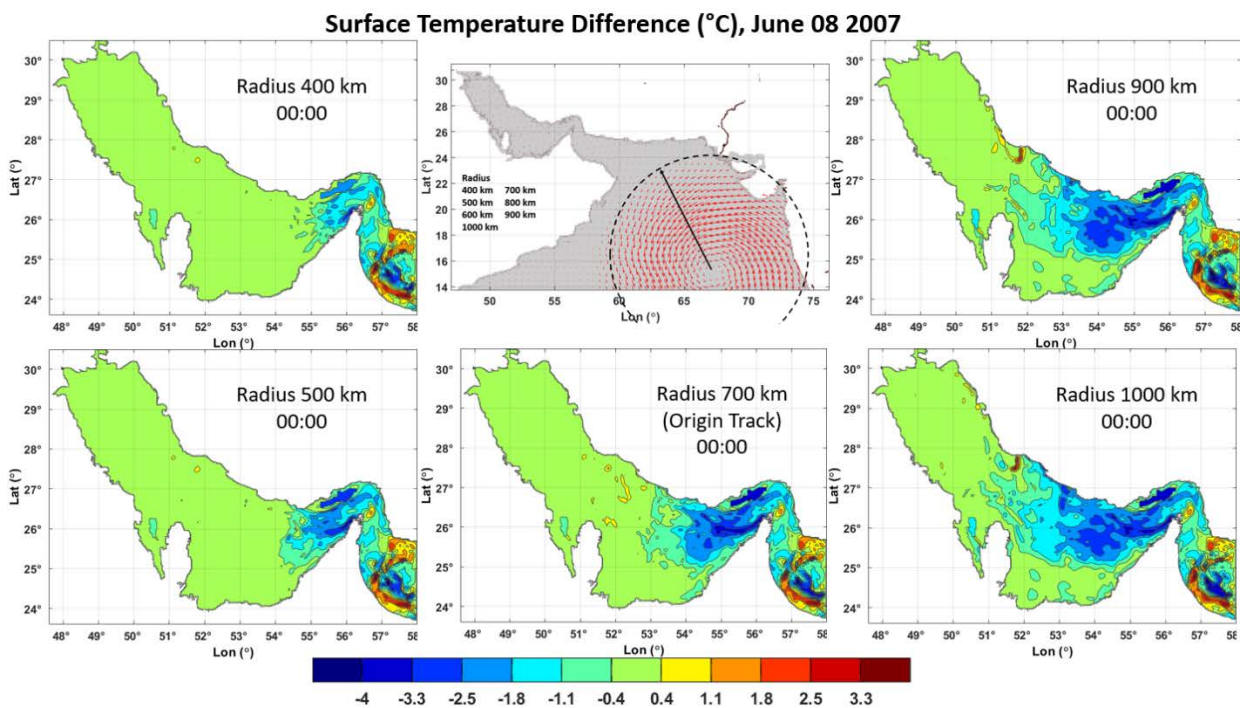


Figure 4.18 Surface temperature differences (°C) by the different radii of circular wind grid in FLOW model results at 00:00 June 8th.

The coupled FLOW+WAVE model shows similar variations of surface salinity under different sizes of circular wind grid, but in this case the large variations of salinity and temperature attributed to the inflows driven by Cyclone Gonu were apparent in the middle and southern Gulf. Figures 4.19 and 4.20 show the surface salinity/temperature differences, forced by the different sizes of cyclone wind fields. The model shows more dynamic variation on the ocean surface, due to various surface forcing (as described in the part 4.3.3). Table 4.7 provides a summary of the models' results for mean salinity and temperature. In the FLOW model, the surface salinity tends to decrease of 0.004-0.006 ppt, as a radius increases and the surface temperature also shows the decreasing trend about 0.02-0.05°C. However, it is found that there is no significant trend on the variations of salinity and temperature from the coupled model results. This is likely attributed to the dynamic cooling, dissipative heating and wave process on the ocean surface (Liu, 2000).

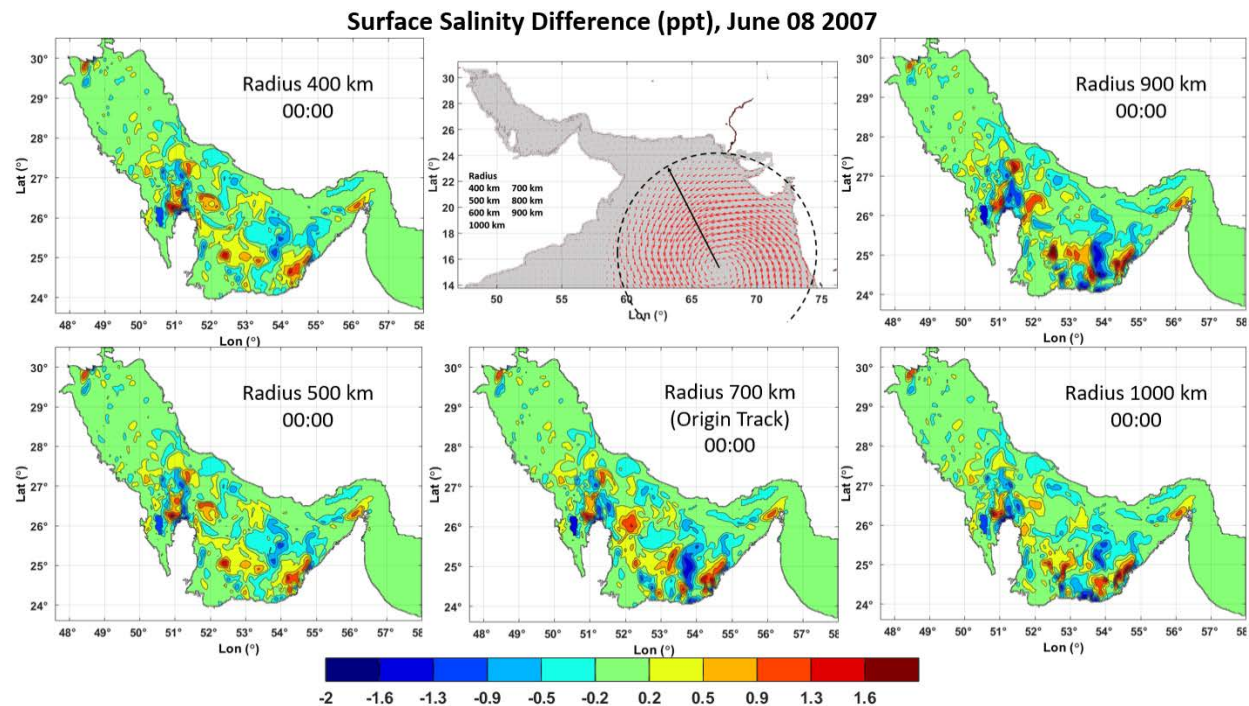


Figure 4.19 Surface salinity differences (ppt) by the different radii of circular wind grid in FLOW+WAVE model results at 00:00 June 8th.

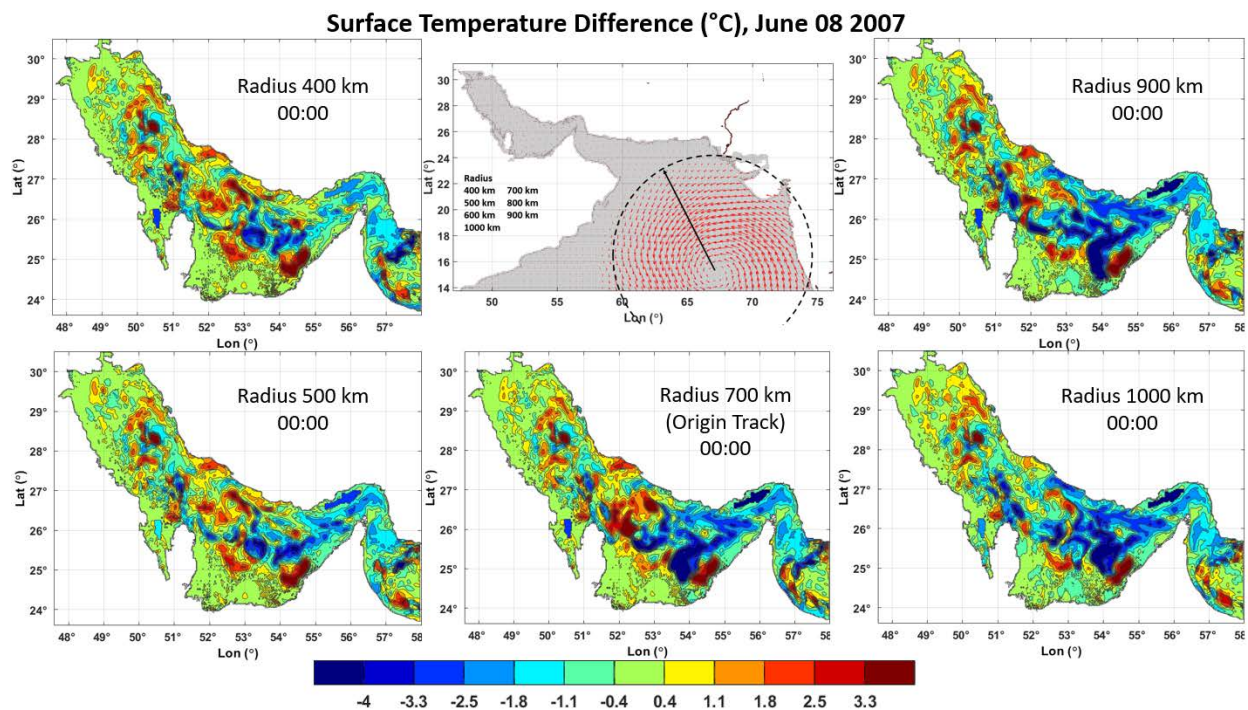


Figure 4.20 Surface temperature differences (°C) by the different radii of circular wind grid in FLOW+WAVE model results at 00:00 June 8th.

Table 4.7 For the different radii of circular wind grid, mean salinity and temperature at surface and bottom from the models' results.

	FLOW Model				FLOW+WAVE Model			
	Salinity (ppt)		Temperature (°C)		Salinity (ppt)		Temperature (°C)	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
No Gonu	38.319	38.466	28.376	24.135	38.324	38.433	27.626	24.153
R400	38.315	38.462	28.351	24.096	38.332	38.444	27.696	24.169
R500	38.314	38.462	28.345	24.096	38.332	38.444	27.693	24.175
R600	38.314	38.462	28.340	24.096	38.332	38.444	27.685	24.173
R700	38.314	38.462	28.336	24.096	38.330	38.443	27.675	24.166
R800	38.314	38.462	28.334	24.097	38.330	38.443	27.678	24.174
R900	38.313	38.462	28.329	24.095	38.329	38.443	27.674	24.172
R1000	38.313	38.462	28.327	24.096	38.329	38.443	27.672	24.170

4.5.2 Variation of Storm Track of Cyclone

Typically, the historical cyclone ensemble demonstrates the significant interannual (Chan and Xu, 2009) and interdecadal (Liu and Chan, 2008) variability in tropical cyclone frequency

and spatial distribution of storm track (Kuleshov et al., 2010). Cyclone data homogeneity, thus, has been an important issue for tropical cyclone frequency, climate, intensity and storm track. In recent years, however, climate change makes predictions difficult to determine the potential track, pattern and intensity of cyclone (Dibajnia et al., 2010). As shown in Figure 4.2, Super Cyclone Gonu is an extremely rare event of a direct cyclone landfall over the coasts of Oman and Iran. Ensemble data is required to examine the possible response to cyclone activity in the Gulf region for the purposes of early warning prediction; however, this is difficult to develop without a sense of track uncertainty, which typically requires a broad historical dataset. To overcome the scarcity data of cyclones and their impacts in the Gulf, however, several storm tracks representing potential storm track variability in the Gulf, are computationally generated on

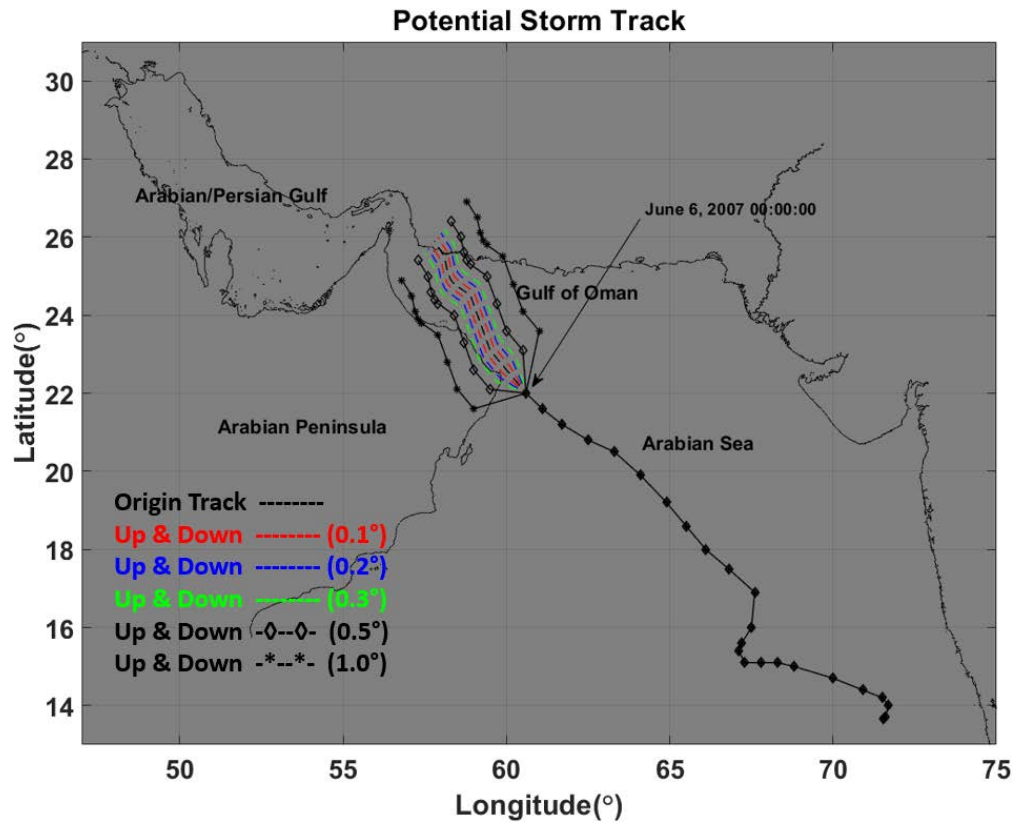


Figure 4.21 Potential storm tracks with the track shift of 0.1°, 0.2°, 0.3°, 0.5° and 1.0° (in Appendix B.2)

the modeling system (as shown in Figure 4.21) to predict the maximum significant wave height and the variations of salinity and temperature forced by cyclones for each track. Since we have more interest in how the different storm tracks affect the inner Gulf environment than the cyclone response in the Arabian Sea, a total of 10 different storm tracks ($\pm 0.1^\circ$, $\pm 0.2^\circ$, $\pm 0.3^\circ$, $\pm 0.5^\circ$, $\pm 1.0^\circ$, in Appendix B.2) were created as alternative cyclones from the June 6th when Gonu arrived near the mouth of the Gulf of Oman. Other cyclone parameters are unchanged from the actual event. Figures 4.22 and 4.23 present the comparisons of maximum significant wave height in the three regions, under the different storm track conditions. Overall, these regions show the high water marks of 2-4 m, regardless of storm track. As the storm track shift northward, the model provides the predictions of significant wave heights with decreasing trend. On the other

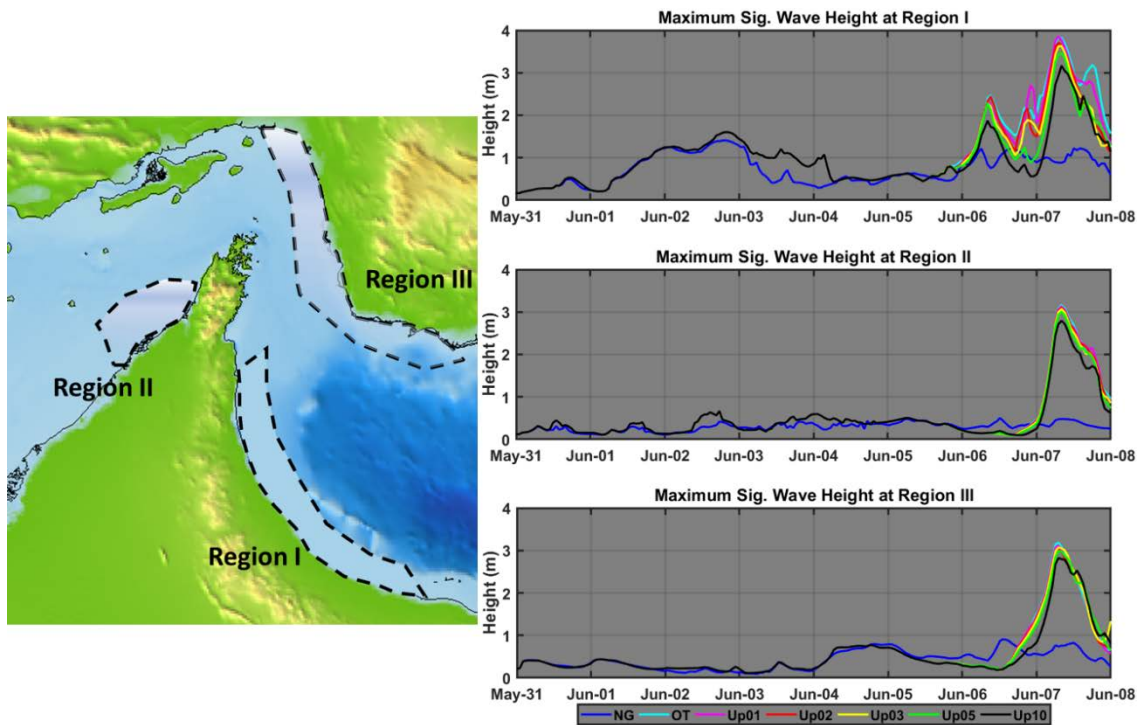


Figure 4.22 Maximum significant wave height at the 3 regions for the northward shift of storm track (NG: without Gonu, OT: origin track, Up01-02,03,05,10: shift up 0.1° , 0.2° , 0.3° , 0.5° , 1.0°).

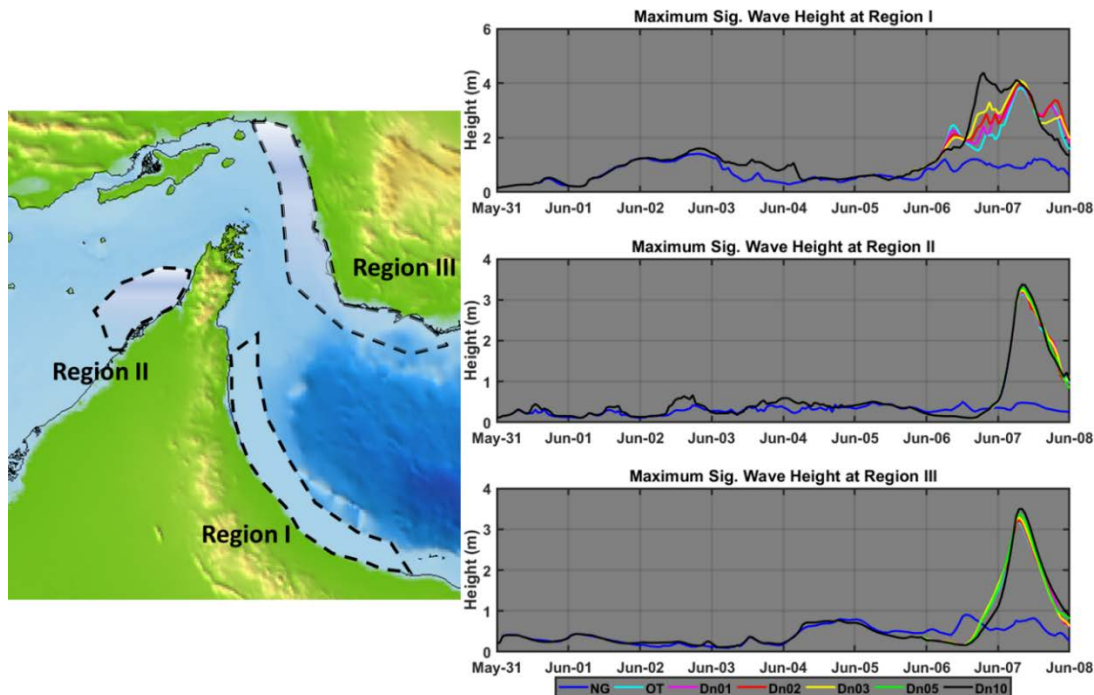


Figure 4.23 Maximum significant wave height at the 3 regions for the southward shift of storm track (NG: without Gonu, OT: origin track, Dn01-02,03,05,10: shift down 0.1° , 0.2° , 0.3° , 0.5° , 1.0°).

hand, the significant wave heights in downward storm track show an increasing trend. It is likely attributed to the relative location of cyclone eye. Before landfalling of a Northern Hemisphere tropical cyclone, the waves to the left of the eye confront opposing winds and thus experience less growth (Young, 1988). These waves are typically weak and small relative to those on the right side of the eye. Tables 4.8 and 4.9 represent the estimated maximum and mean significant wave heights for the three regions, under different storm track conditions. From the model results, the maximum significant wave heights of northward storm track gradually decreased over all regions. In contrast to northward storm tracks, the maximum significant wave height of southward tracks increased for all regions. Figure 4.24, in addition, shows the comparison of maximum significant wave height under the different storm tracks at 8:00, June 7th. The resulting model shows that the high vulnerability is identified in the coast area of Oman, UAE and Iran, likewise.

Table 4.8 Summary of maximum significant wave height for the 3 regions, in the different storm tracks.

	Different Track (Max. Sig. Wave Height, m)						
	No Gonu	Gonu	Northward 0.1°	Northward 0.2°	Northward 0.3°	Northward 0.5°	Northward 1.0°
Region I	1.409	3.826	3.852	3.703	3.631	3.462	3.166
Region II	0.503	3.161	3.133	3.102	3.072	3.006	2.793
Region III	0.909	3.181	3.117	3.046	3.071	2.987	2.818
	No Gonu	Gonu	Southward 0.1°	Southward 0.2°	Southward 0.3°	Southward 0.5°	Southward 1.0°
	No Gonu	Gonu	Southward 0.1°	Southward 0.2°	Southward 0.3°	Southward 0.5°	Southward 1.0°
Region I	1.409	3.826	3.951	3.946	4.101	4.384	4.384
Region II	0.503	3.161	3.189	3.224	3.243	3.293	3.372
Region III	0.909	3.181	3.221	3.222	3.291	3.379	3.495

Table 4.9 Summary of mean significant wave height for the 3 regions, in the different storm tracks.

	Different Track (Mean. Sig. Wave Height, m)						
	No Gonu	Gonu	Northward 0.1°	Northward 0.2°	Northward 0.3°	Northward 0.5°	Northward 1.0°
Region I	0.729	1.162	1.133	1.086	1.063	1.019	0.959
Region II	0.297	0.526	0.526	0.520	0.513	0.504	0.480
Region III	0.418	0.574	0.571	0.570	0.574	0.566	0.541
	No Gonu	Gonu	Southward 0.1°	Southward 0.2°	Southward 0.3°	Southward 0.5°	Southward 1.0°
	No Gonu	Gonu	Southward 0.1°	Southward 0.2°	Southward 0.3°	Southward 0.5°	Southward 1.0°
Region I	0.729	1.162	1.196	1.220	1.228	1.246	1.246
Region II	0.297	0.526	0.529	0.529	0.535	0.532	0.536
Region III	0.418	0.574	0.580	0.578	0.581	0.585	0.581

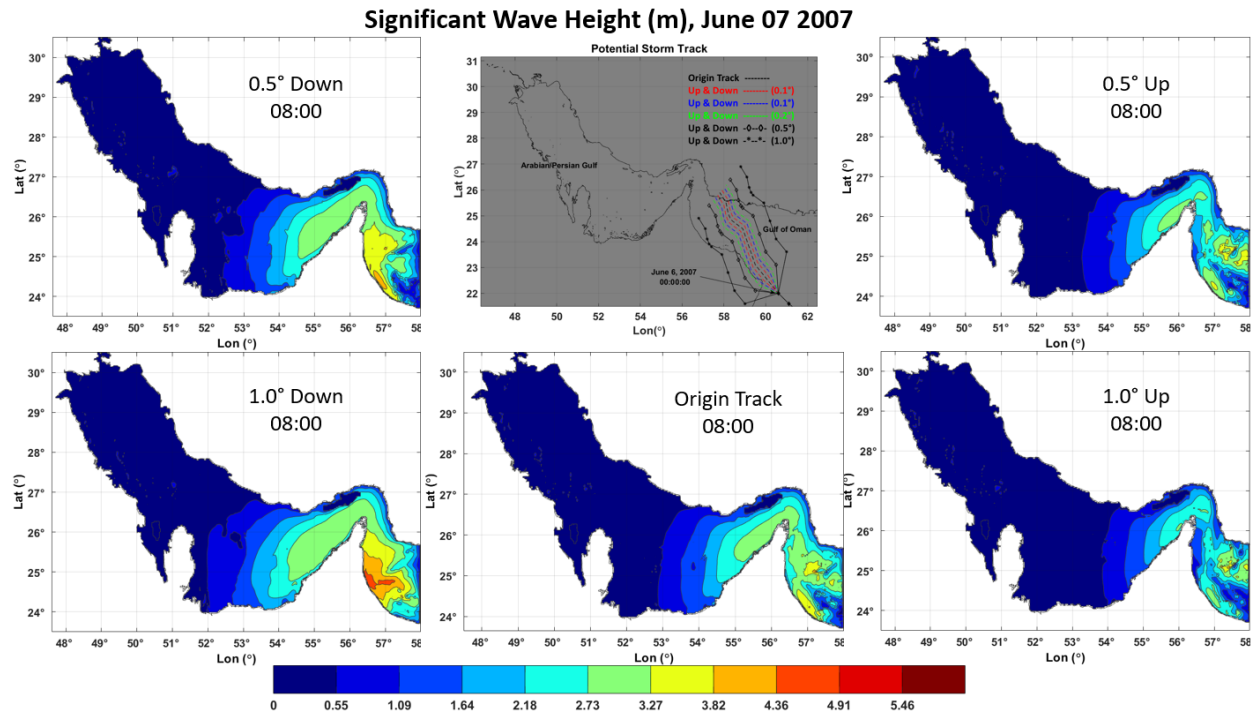


Figure 4.24 Comparison of significant wave height (m) for different tracks at 08:00 June 7th.

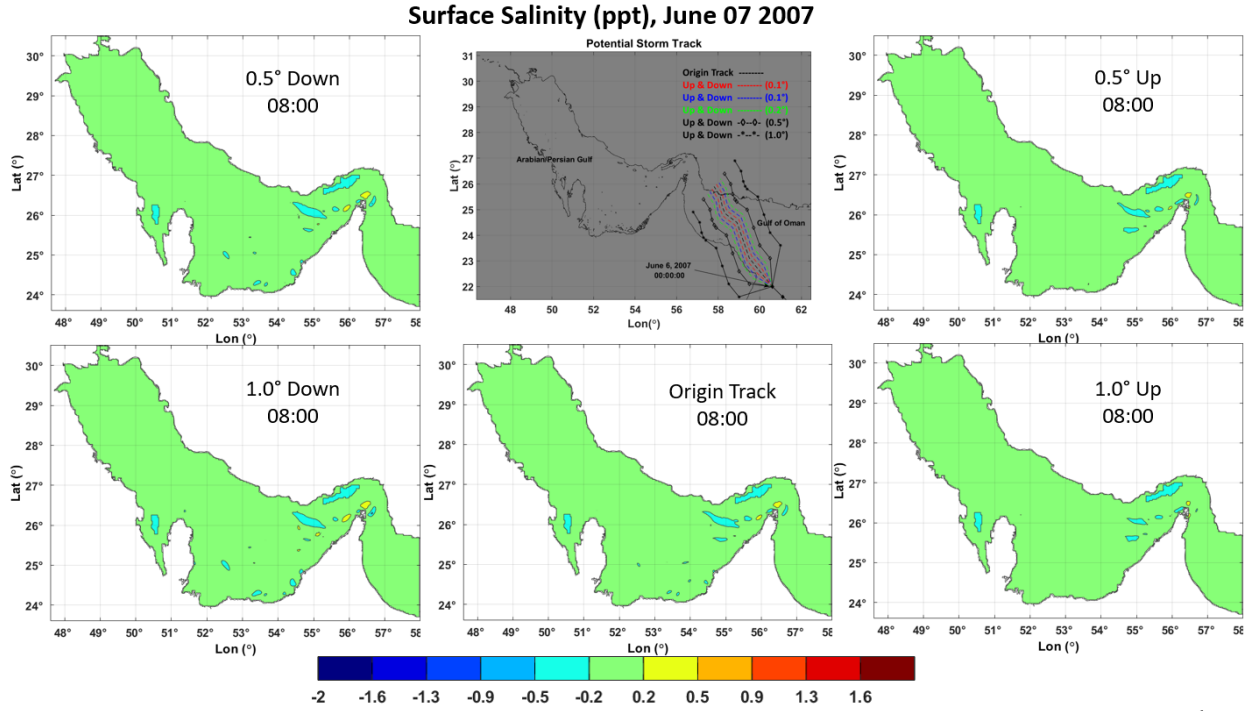


Figure 4.25 Surface salinity differences (ppt) by the different tracks in FLOW model results at 08:00 June 7th.

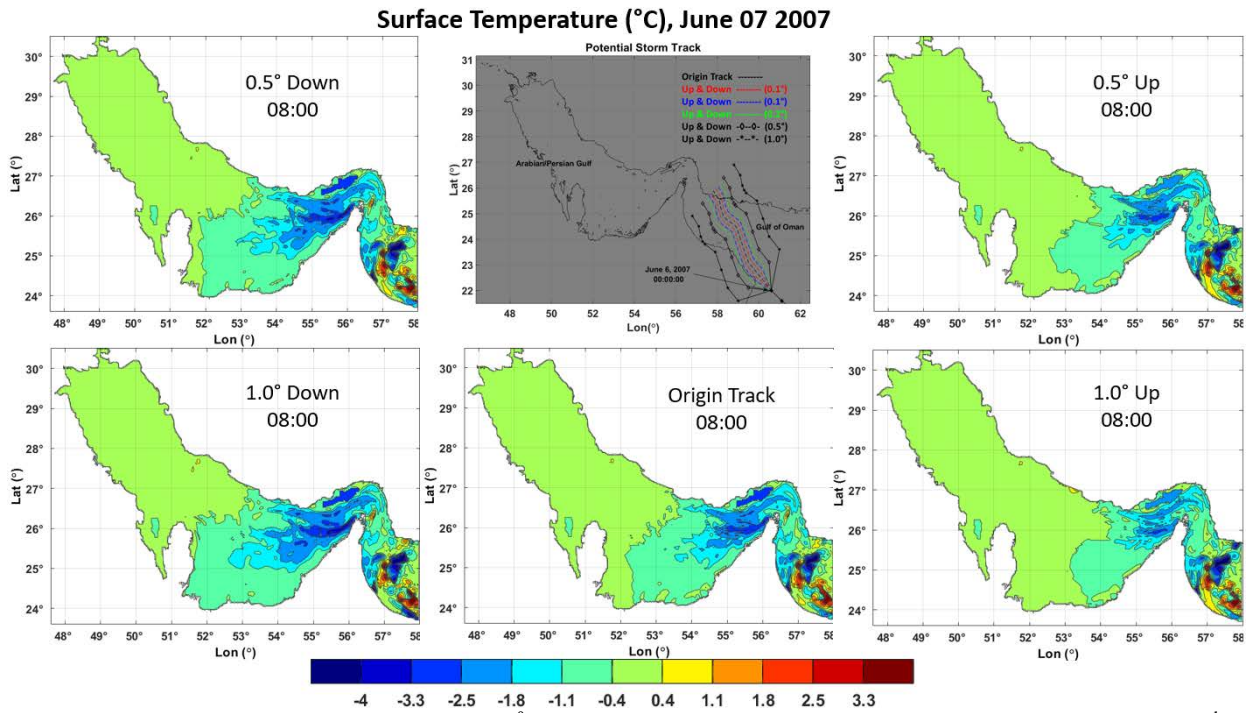


Figure 4.26 Surface temperature differences (°C) by the different track in FLOW model results at 08:00 June 7th.

Figures 4.25 and 4.26 show the spatial variations of surface salinity/temperature differences forced by the different storm tracks, from the FLOW model results. The response to surface salinity is anomalously weak compared to the variation of surface temperature in northward/southward shift of the storm track. In particular, since the cyclones in southward shift of storm track have their stronger winds over the Gulf of Oman and Arabian Sea, and as a result push more water through the Strait of Hormuz, larger variations of temperature are seen in the middle Gulf with the southward-shifted storms than with those whose tracks are shifted northward. In Figures 4.27 and 4.28, on the other hand, the coupled model provides similar results that the surface salinity and temperature under the different storm track also show more variations, likely due to various surface forcing. In addition, there is no significant changes on the surface salinity differences among the comparison groups, as shown in Figure 4.27.

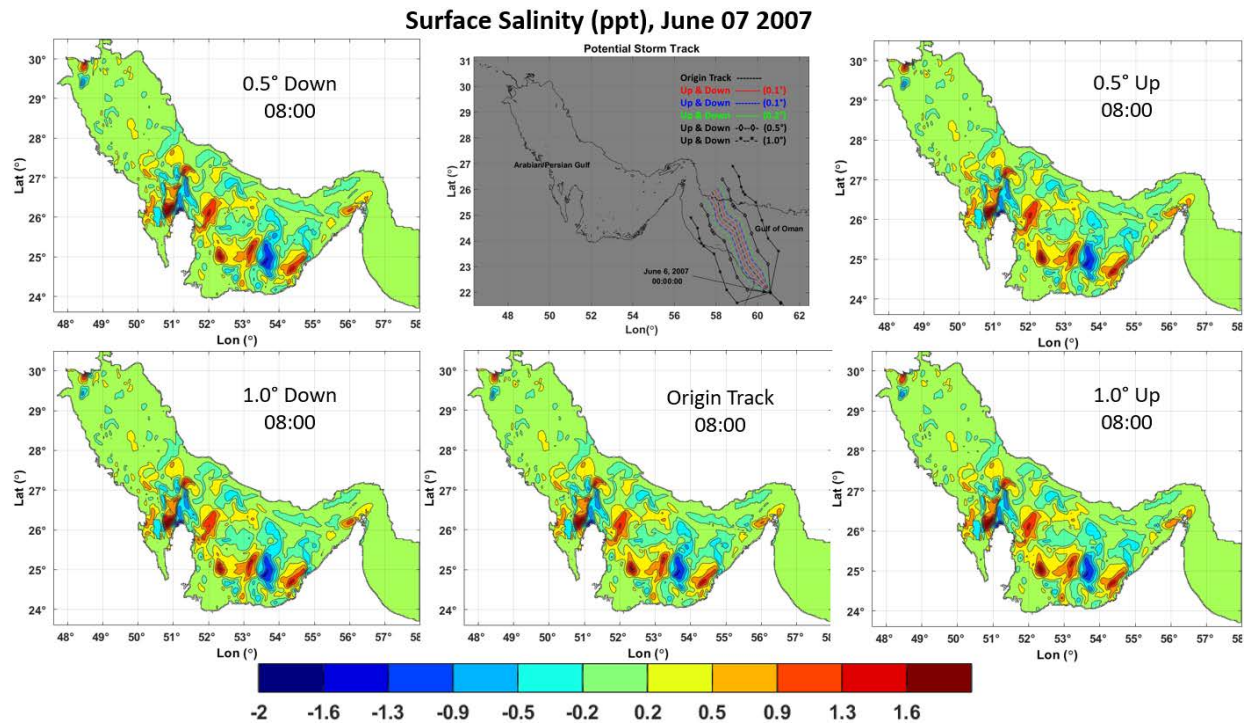


Figure 4.27 Surface salinity differences (ppt) by the different tracks in FLOW+WAVE model results at 08:00 June 7th.

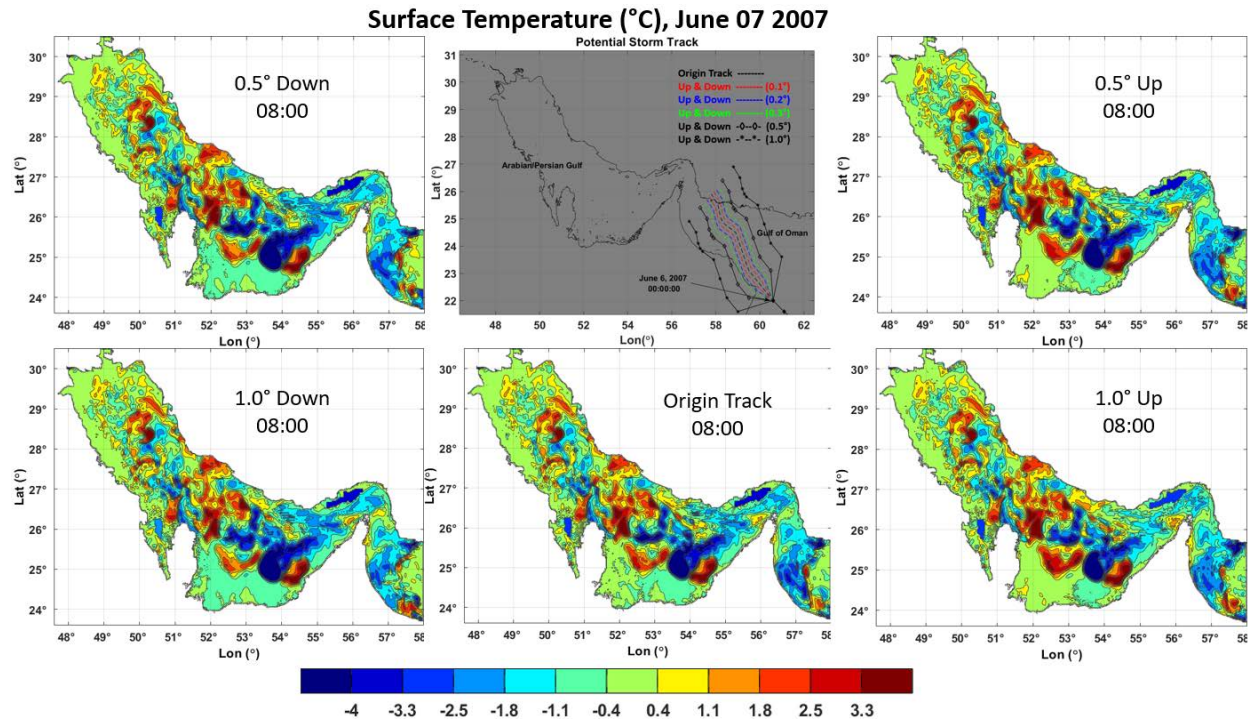


Figure 4.28 Surface temperature differences (°C) by the different track in FLOW+WAVE model results at 08:00 June 7th.

Tables 4.10 and 4.11 show the FLOW model results in both the entire Gulf and Gulf of Oman/Strait of Hormuz, respectively. The global mean salinity was unaffected by the different storm tracks, but a small difference of about 0.001 ppt was shown in the Gulf of Oman/Strait of

Table 4.10 For the different storm tracks, comparison of mean salinity (ppt) and temperature (°C) at surface and bottom in entire Gulf from the FLOW model results.

FLOW Model	Different Track (for Entire Gulf)						
	No Gonu	Gonu	Northward 0.1°	Northward 0.2°	Northward 0.3°	Northward 0.5°	Northward 1.0°
Surface Salinity	38.319	38.314	38.314	38.314	38.314	38.314	38.314
Bottom Salinity	38.466	38.462	38.462	38.462	38.462	38.462	38.462
Surface Temperature	28.376	28.336	28.338	28.340	28.341	28.344	28.350
Bottom Temperature	24.135	24.096	24.096	24.097	24.096	24.096	24.096
	No Gonu	Gonu	Southward 0.1°	Southward 0.2°	Southward 0.3°	Southward 0.5°	Southward 1.0°
Surface Salinity	38.319	38.314	38.314	38.314	38.314	38.314	38.314
Bottom Salinity	38.466	38.462	38.462	38.462	38.462	38.462	38.462
Surface Temperature	28.376	28.336	28.335	28.333	28.331	28.330	28.321
Bottom Temperature	24.135	24.096	24.096	24.096	24.096	24.097	24.092

Table 4.11 For the different storm tracks, comparison of mean salinity (ppt) and temperature (°C) at surface and bottom in the Gulf of Oman and Strait of Hormuz, from the FLOW model results.

FLOW Model	Different Track (for Gulf of Oman/Strait of Hormuz)						
	No Gonu	Gonu	Northward 0.1°	Northward 0.2°	Northward 0.3°	Northward 0.5°	Northward 1.0°
Surface Salinity	36.839	36.832	36.832	36.832	36.832	36.832	36.832
Bottom Salinity	37.005	37.001	37.001	37.001	37.001	37.001	37.001
Surface Temperature	28.087	27.940	27.941	27.947	27.948	27.950	27.960
Bottom Temperature	23.718	23.599	23.598	23.598	23.597	23.595	23.596
	No Gonu	Gonu	Southward 0.1°	Southward 0.2°	Southward 0.3°	Southward 0.5°	Southward 1.0°
Surface Salinity	36.839	36.832	36.832	36.832	36.832	36.832	36.833
Bottom Salinity	37.005	37.001	37.001	37.001	37.000	37.000	37.000
Surface Temperature	28.087	27.940	27.938	27.936	27.934	27.936	27.922
Bottom Temperature	23.718	23.599	23.599	23.599	23.599	23.604	23.604

Hormuz. Regardless of the variety of storm tracks, the cyclone had led to mean salinity decrease of 0.004 ppt to the Gulf region. However, the surface temperature showed a positive correlation with the storm tracks. Tables 4.12 and 4.13, in addition, provide results from the coupled model. The surface salinity shows the dynamic variations in Figure 4.27, but the mean salinity quantified in Tables 4.12 and 4.13 does not correlate with the different storm tracks.

Table 4.12 For the different storm tracks, comparison of mean salinity (ppt) and temperature (°C) at surface and bottom in entire Gulf from the FLOW+WAVE model results.

FLOW+WAVE Model	Different Track (for Entire Gulf)						
	No Gonu	Gonu	Northward 0.1°	Northward 0.2°	Northward 0.3°	Northward 0.5°	Northward 1.0°
Surface Salinity	38.319	38.314	38.330	38.330	38.330	38.330	38.331
Bottom Salinity	38.466	38.462	38.443	38.443	38.443	38.443	38.444
Surface Temperature	28.376	28.336	27.671	27.673	27.674	27.677	27.688
Bottom Temperature	24.135	24.096	24.163	24.163	24.166	24.165	24.167
	No Gonu	Gonu	Southward 0.1°	Southward 0.2°	Southward 0.3°	Southward 0.5°	Southward 1.0°
Surface Salinity	38.324	38.330	38.330	38.329	38.330	38.329	38.330
Bottom Salinity	38.433	38.443	38.443	38.442	38.443	38.443	38.443
Surface Temperature	27.626	27.675	27.673	27.668	27.675	27.674	27.678
Bottom Temperature	24.153	24.166	24.165	24.164	24.167	24.168	24.162

Table 4.13 For the different storm tracks, comparison of mean salinity (ppt) and temperature (°C) at surface and bottom in the Gulf of Oman and Strait of Hormuz, from the FLOW+WAVE model results.

FLOW+WAVE Model	Different Track (for Gulf of Oman/Strait of Hormuz)						
	No Gonu	Gonu	Northward 0.1°	Northward 0.2°	Northward 0.3°	Northward 0.5°	Northward 1.0°
Surface Salinity	36.839	36.832	36.833	36.833	36.833	36.833	36.834
Bottom Salinity	37.005	37.001	36.994	36.994	36.994	36.995	36.995
Surface Temperature	28.087	27.940	27.598	27.596	27.602	27.607	27.629
Bottom Temperature	23.718	23.599	23.599	23.595	23.599	23.596	23.593
	No Gonu	Gonu	Southward 0.1°	Southward 0.2°	Southward 0.3°	Southward 0.5°	Southward 1.0°
Surface Salinity	36.828	36.833	36.833	36.833	36.833	36.833	36.835
Bottom Salinity	36.965	36.994	36.993	36.993	36.993	36.993	36.994
Surface Temperature	27.466	27.604	27.606	27.613	27.616	27.626	27.636
Bottom Temperature	23.658	23.604	23.603	23.609	23.608	23.615	23.597

4.6 Conclusion and Discussion

Super Cyclone Gonu was the most intense and costly extreme weather event on record over the last 100 years in the Arabian Sea (Najar and Salvekar, 2010), which occurred from May 31st to June 8th, 2007. It caused tremendous damage to coastal communities in Oman, Iran and UAE, resulting from high storm surge (Fritz et al., 2010). While the Arabian Sea experiences a low frequency of active cyclone events with respect to the global basin (Ramsay, 2017), the continued growth of industry, population and large coastal communities near the Gulf coasts has increased its vulnerability to hazards. Thus, understanding and prediction of Cyclone Gonu over the Gulf area has illustrated its importance.

The Delft3D modeling suite, using both FLOW and WAVE models (Deltares, 2011), was used to investigate the hydrodynamic characteristics and wind-driven wave effects during the Gonu period. From the pre-simulation of Chapter II, we used the sea state of the Gulf on May 31st, 2007 as an initial condition of this study. The model depicted maximum significant wave height of about 3.2-3.8 m at the coastal regions of the Oman, UAE and Iran. The intensity and

frequency of tropical cyclones are related to variation and transport of surface temperature (Tsutsui, 2002; Webster et al., 2005; Sun et al., 2006; Kafatos et al., 2006). Both models show spatial and temporal variations of local increase and decrease of ± 2 ppt (and more) in salinity and $\pm 4^{\circ}\text{C}$ (and more) in temperature, due to the enormous inflows of fresh water from the Indian Ocean which has the potential to disturb the salinity and temperature field in middle and southern Gulf.

A sensitivity analysis was performed to investigate the model response to different cyclone conditions, representing potential future cyclones and uncertainty of cyclone characterization. Several insights can be gleaned by simulating the cyclone models with different radii of circular wind field to investigate what the effect might be on the wave height, salinity and temperature transport in the Gulf region. The different sizes of cyclone wind input-condition resulted in the different spatial and temporal distribution of significant wave height. Figure 4.16, however, presented similar results of maximum significant wave height at the coastal areas of Oman and Iran. Significant wave heights were uncorrelated with the sizes in Table 4.6, but the maximum significant wave heights ascertained near the coast of Oman, UAE and Iran demonstrate high vulnerability to coastal hazards. The models with larger radii of cyclone winds have led to expanded impact on surface salinity and temperature variations, as seen in the Strait of Hormuz as well as the middle and southern Gulf regions. In addition, results from the coupled FLOW+WAVE model has shown more dynamic variability of surface salinity and temperature than the FLOW model results, likely due to the wind-driven waves. The coupled model yielded an averaged 0.04% increase in surface salinity and 2.35% decrease in surface temperature were relative to the FLOW model.

Recently, climate change effects have made it more difficult to predict the potential storm track, pattern and intensity of cyclones (Dibajnia et al., 2010). In addition, the lack of a historic ensemble of cyclones in the Gulf also adversely affects reliable climatological predictions. To address the effect of track variability, a total ten different storm tracks were generated to investigate the possible changes of the Gulf environment. Based on the Gonu track, the maximum significant wave height appeared to decrease for the cyclone tracks shifted to the north, but the cyclones with southward-shifted tracks showed a gradually increasing trend. The model also showed high vulnerability to the cyclones with different storm track, in the coast regions in Oman, UAE and Iran. The spatial variations of surface salinity/temperature differences resulting from the various storm tracks were shown in Figure 4.25 to 4.28. Southward-shifted cyclones yielded increased circulation, salinity and temperature change, and transport through the Strait of Hormuz relative to northward-shifted cyclones. There are no significant changes on the surface salinity, but the surface temperature showed a positive correlation with the storm track.

The variations of salinity and temperature by Gonu were also seen in the middle and

southern Gulf. Cyclone Gonu had dropped heavy rainfall near the eastern coast of Gulf of Oman, reaching 610 mm (Fritz et al., 2010), with the highest rainfall total of 943 mm located at Asfar Mountain (Al-Maskari, 2010). The excessive rainfalls during the cyclone event may be a significant contributor to the variations of salinity and temperature, and the local marine ecology may have been threatened by the abrupt changes (as described in the part 3.5.4). In addition, the coral community in the Gulf of Oman was affected by intense wave force and storm water runoff during Cyclone Gonu (Taylor, 2010). The physical and hydrodynamic changes at upper layer can directly affect the Gulf's marine environment and ecosystem. However, the model does not consider the rainfalls driven by Gonu, since it is not clear how to apply the spatial and temporal varying rainfalls along the storm track into the Delft3D modeling system. The upcoming studies, thus, shall suggest the solution for rainfalls during the cyclone event and apply the risk and extreme value analysis, flooding and inland inundation, using Cyclone Gonu.

4.7 References

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CHAPTER V

CONCLUSIONS AND FUTURE WORK

The primary objectives of this dissertation were to develop and validate a three-dimensional hydrodynamic model for the Arabian/Persian Gulf (a region marked by scarcity of information on the oceanography and meteorological characteristics). The validated model was used to apply a wide array of effects and processes, including desalination and extreme weather condition. The completed modeling system would provide meaningful predictions and importance to understand the ocean hydrodynamics, wind-driven mixing processes, salinity and temperature transports, ocean circulations, surface dynamics, wave effects and continuing interests of environmental effects from human use and future Gulf environment.

5.1 Conclusions

5.1.1 Hydrodynamic Modeling

The Arabian/Persian Gulf, shown in Figure 2.1, is a long and narrow body of water in Western Asia, bordered primarily by Iran, Kuwait, Qatar, Saudi Arabia and UAE. It is a large inverse estuary, with the Strait of Hormuz as the only major connection to the Gulf and Indian Ocean. The Gulf has unique characteristics in oceanographic and climatological conditions, all of which are responsive to climate change. Thus, the modeling system (Delft3D-FLOW, Deltares, 2011a,b) has been established to evaluate the hydrodynamic features with available meteorological data, such as the winds, heat energy, evaporation and precipitation, and river inflows in the northern Gulf. Unlike prior studies, this modeling study focused on building spatially and temporally varying oceanographic features to force the modeling system at finer

grid resolutions, such as three-dimensional, temporally varying transport conditions, and space and time-varying input winds and pressure. In addition, a sensitivity study was performed to understand how the model responds to the input conditions, and evaluate how much each input parameter is contributing to the hydrodynamic features in the Gulf. The evaporation and precipitation rates and winds are significant influences on the variations of salinity and temperature, and further associated with their physical transports of hydrodynamic process. Four major rivers in the northern Gulf affect the salinity changes near the river estuary. Thus, this study provides the fundamental modeling system to reproduce the general characteristics of hydrodynamic predictions as has been validated with the field observations (TAMUG, Microstructure Group, in 2013).

5.1.2 Model Prediction: Desalination Process

The desalination process has been not only widely adopted by the high demands of water in the Gulf, but also has caused deleterious effects on the marine environment due to the vast amounts of high saline water from the plants' discharge. The desalination process response to the Gulf environment has been applied to the validated modeling system (as described in Chapter II), the model results have been discussed to evaluate the environmental effects of desalination process in the Gulf. Despite the many benefits of desalination, the negative effects for long-term period will be anticipated with the increase of salinity and temperature driven by the desalination. A simplified model with the major 12 desalination plants in the Gulf has led to local increases of 1-2 ppt in salinity and 1-3 °C in temperature; seasonal variations of salinity and temperature were also obtained from the results of this simplified model. A total of 76 desalination processes in the Gulf were applied to the modeling system to investigate the long-

term variations of salinity and temperature, and the maximum 4.21 ppt increases in salinity and 4.32 °C in temperature due to the brine discharge of desalination were obtained at the adjacent area to desalination plant. These substantial changes response to the desalination have a high potential to deteriorate the marine ecosystem. In addition, the correlation would estimate how the variations of salinity and temperature resulted from the desalination response to the prevailing wind field in the Gulf.

5.1.3 Model Prediction: Extreme Conditions and Natural Hazards

Super Cyclone Gonu (2007) was an extremely rare hazardous event for the Arabian Sea and Gulf of Oman area. It caused enormous damage to coastal regions in Oman, UAE and Iran (Fritz et al., 2010). The Arabian Sea experiences low frequency of active cyclone relative to global trends (Ramsay, 2017), but this basin is one of the most vulnerable in the world due to the continued growth of industry, population and the presence of significant infrastructure near the Gulf coast. The Delft3D modeling system with the FLOW and WAVE models (Deltares, 2011a, b) was used to investigate the hydrodynamic characteristics and wind-driven wave effects during the Gonu period. The effects of Cyclone Gonu from the model results have revealed the substantial vulnerability of the Gulf coast, as shown with the maximum significant wave height about 3.2-3.8 m. The variations of salinity and temperature by the Gonu event were also obtained in the middle and southern Gulf, and the marine ecology may be threatened by the abrupt changes in salinity and temperature. The models show the spatial and temporal variations of local increase and decrease of ± 2 ppt (and more) in salinity and $\pm 4^{\circ}\text{C}$ (and more) in temperature, due to the enormous inflows from the Indian Ocean. In addition, a sensitivity study was performed to investigate the effects of different cyclone conditions. Different sizes of cyclone wind grid and storm tracks were used for strong influences on the potential variability in the

future. The model showed the high vulnerability to the cyclones with different sizes and storm tracks, in the coastal regions in Oman, UAE and Iran. Furthermore, the model provides a depiction of risk for coastal communities, and the threat to the biological productivity by increasing/decreasing salinity and temperature in the Gulf region.

5.2 Future Work

Climate change has the potential to impart negative impacts to water resources (van Vliet et al., 2013), anomalous weather (Leroy, 2006) and hydrodynamics in the Gulf. The global mean surface temperature has risen by $0.74 (\pm 0.18) ^\circ\text{C}$ over the last century (1906-2005) (Solomon et al., 2007), and the temperature increase in the Gulf is expected to increase $0.4 ^\circ\text{C}$ over the next two decades (IPCC, 2007). The loss rate (2013-2014, -750 mm per year, WGMS 2016) of the glacier thickness has been continuously increasing with climate change (Mernild et al., 2013, and Zemp et al., 2015). In addition, it is unclear how the individual components, such as climate change, anomalous weather and future development of industry, will interact with the Gulf environment over the future long-term period. The Gulf is particularly vulnerable to future climate change, due to the combination of oceanographic conditions and human-made effects. There is an extensive area of shallow water depth (< 20 m) in the southern Gulf and the Gulf can experience strong heating and cooling energies in summer and winter which lead the high density changes (Kämpf and Sadriinasab, 2006). Due to the relative sea level rise (with 2.2 mm/yr) in the Gulf (Alothman et al., 2014), in addition, significant land-surface inundation will occur on small Gulf islands (Bricker, 2007 and Ketabchi et al., 2014), and it is also estimated that 96% of coastal wetland will be lost from the Gulf region (Blankespoor, et al., 2014). The consequence of the increased temperature and salinity is the significant effects on the recovery of

ecosystem from the disturbance, and the high changes of temperature and salinity and other physical factors in the Gulf hinder the growth and development of the marine organisms (Sheppard et al., 2010). Riegl (2003) had suggested the future scenario including the mixing process and water level rising, wind speed, as the results from the greenhouse climate. The vulnerability of the important *shamal* wind events, in particular, to warming events is still unknown. Since there is limited available data for the Gulf region concerning the climate changes response to the oceanographic conditions and human-made resources, a modeling effort would be required to incorporate the above relevant concerns for the total modeling system in the future, including correlation of the major factors with future climate change impacts. This will be further parameterized and estimated with deduction of statistically significant trends serving to modify the model inputs to reflect these conditions of climate changes to the modeling system.

The Gulf is exposed to a constant risk of oil spills and other pollution source due to the huge gas reserves and the high volume of ship traffic through the Strait of Hormuz (Elhakeem, et al., 2007). While coastal regions are not directly affected by the oil spills, desalination, power plants and other infrastructure dependent on offshore environmental health in the Gulf are very vulnerable to oil and pollution events. A more comprehensive approach, for example, to improve multi-scale structure of grid resolution and mixing parameterization, and incorporate updated diffusion mechanisms and desalination processes, to assess high risk of salinity and temperature increases, will be applied to the modeling system for the marine environment. In addition, because of significant reduction of surface- and groundwater resources in MENA region due to the climate change in the future (Immerzeel et al., 2011), the high reliance on desalination in the Gulf region will be facilitated. A modeling effort would be required to incorporate the climate change response to the climatological and oceanographic conditions with future desalination

process in the Gulf for the total modeling system. The environmental impact assessment of desalination discharge with the effect of global climate change still remains a significant need for the Gulf study. In the later stage of this study, we will improve the assumptions of desalination modeling, addressed in Chapter III.

In recent years, the Gulf has been experiencing anomalous weather, such as the flooding by heavy rains, rare waterspout and the extremely rare Cyclone event (Gonu, 2007), which can be potential threat to the desalination/energy plants and infrastructures along the Gulf coast. The effects of Cyclone Gonu (2007) from the model results have shown the substantial vulnerability of the Gulf coast as shown with the maximum significant wave height (3.2-3.8 m). However, we did not consider the spatial and temporal varying rainfalls driven by the Gonu, in Delft3D modeling system. The upcoming studies, thus, shall suggest the solution for rainfalls during the cyclone event and apply for flooding and inland inundation problems, using the Cyclone Gonu (2007). In addition, the variations of salinity and temperature by the Gonu event (2007) were also obtained in the middle and southern Gulf, and the marine ecology may be threatened by the abrupt changes in salinity and temperature. Future applications included the physical, chemical and biological effect from the approaching hazards (future cyclones) in the Gulf will be estimated and discussed.

Currently, however, the future modeling system has not been well established to investigate the hydrodynamic features driven by the future climate changes in the Gulf. Upcoming studies include the investigations of physical components that produce the possible changes on the future Gulf climate and their statistical trends. All physical processes relevant to climate changes will be incorporated into the modeling efforts, and it will provide more reliable modeling system for the long-term effects with climate change.

5.3 References

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APPENDIX A

Boundary Conditions Input Conditions in Delft3D

A.1 Transport Boundary Conditions Along an Open Boundary (A: 57.9°E, 23.8°N B: to 57.9°E, 25.6°N, as shown in Figure 2.1)

Boundary Open Sea		Salinity (ppt)				Temperature (°C)			
		Surface A	Bottom A	Surface B	Bottom B	Surface A	Bottom A	Surface B	Bottom B
2004	Jan	36.69	36.47	36.65	36.39	23.85	20.52	23.70	20.99
	Feb	36.66	36.50	36.62	36.49	23.37	20.45	23.01	20.72
	Mar	36.68	36.44	36.65	36.62	24.15	19.66	23.52	20.69
	Apr	36.77	36.52	36.71	36.87	25.84	19.77	25.19	21.04
	May	36.89	36.83	36.71	36.89	28.07	20.45	27.20	20.01
	Jun	36.91	36.93	36.66	36.65	30.36	20.58	29.58	19.65
	Jul	36.90	36.71	36.64	36.55	31.87	19.30	31.53	19.11
	Aug	36.90	36.52	36.65	36.53	31.51	17.63	31.55	17.72
	Sep	36.90	36.46	36.54	36.44	30.31	17.14	30.15	16.87
	Oct	36.80	36.40	36.40	36.33	29.59	17.60	28.84	17.28
	Nov	36.64	36.35	36.44	36.32	28.49	18.50	27.78	18.05
	Dec	36.59	36.40	36.55	36.36	26.58	19.45	26.34	18.78
2005	Jan	36.64	36.42	36.63	36.36	24.50	19.73	24.54	19.37
	Feb	36.70	36.42	36.68	36.39	23.29	19.61	23.22	19.43
	Mar	36.73	36.54	36.69	36.53	23.56	19.69	23.23	20.20
	Apr	36.79	36.65	36.73	36.61	25.37	19.76	24.63	20.92
	May	36.90	36.76	36.74	36.63	28.05	20.03	26.94	20.31
	Jun	37.01	36.84	36.70	36.69	30.56	20.21	29.80	19.76
	Jul	37.03	36.78	36.77	36.71	31.55	19.50	31.33	18.96
	Aug	36.98	36.70	36.65	36.57	32.04	18.56	31.78	18.26
	Sep	36.94	36.56	36.49	36.45	31.59	17.99	31.36	18.07
	Oct	36.89	36.43	36.56	36.42	30.31	17.89	30.09	17.86
	Nov	36.83	36.42	36.58	36.40	28.97	18.20	28.51	18.21
	Dec	36.70	36.40	36.55	36.37	26.87	18.67	26.50	18.76
2006	Jan	36.58	36.38	36.52	36.35	24.62	19.31	24.34	19.26
	Feb	36.58	36.44	36.54	36.40	23.57	19.66	23.34	19.81
	Mar	36.61	36.59	36.55	36.41	23.91	20.14	23.55	19.60
	Apr	36.66	36.62	36.59	36.32	25.44	19.86	24.65	18.73
	May	36.75	36.57	36.63	36.45	28.68	19.08	27.70	18.46
	Jun	36.88	36.74	36.60	36.65	31.38	19.50	30.48	18.75
	Jul	36.93	36.85	36.60	36.68	32.11	19.57	31.65	18.63
	Aug	36.88	36.73	36.76	36.71	31.74	18.87	32.08	18.67
	Sep	36.87	36.59	36.62	36.72	31.32	18.17	31.36	18.64
	Oct	36.79	36.46	36.40	36.55	30.88	17.74	30.08	18.10
	Nov	36.67	36.36	36.50	36.33	29.53	18.53	28.61	18.61
	Dec	36.62	36.39	36.54	36.30	26.62	19.18	26.11	18.48
2007	Jan	36.57	36.41	36.51	36.31	23.93	19.27	23.87	18.56
	Feb	36.57	36.39	36.51	36.25	23.11	19.67	23.10	19.44
	Mar	36.59	36.53	36.53	36.34	23.50	19.77	23.42	19.46
	Apr	36.63	36.78	36.54	36.49	25.25	20.10	24.97	19.33
	May	36.72	36.88	36.55	36.61	28.36	20.60	27.81	19.30
	Jun	36.72	36.84	36.47	36.67	30.79	20.60	30.10	19.53
	Jul	36.70	36.76	36.38	36.61	31.61	19.53	31.19	18.95
	Aug	36.73	36.69	36.34	36.57	31.76	18.44	31.80	18.12
	Sep	36.73	36.60	36.36	36.55	31.63	18.38	31.42	18.00
	Oct	36.72	36.40	36.48	36.39	30.52	18.24	29.88	17.87
	Nov	36.72	36.31	36.60	36.34	28.92	18.47	28.21	18.25

	Dec	36.68	36.29	36.61	36.38	27.00	19.52	26.18	19.79
2008	Jan	36.59	36.38	36.56	36.35	24.74	20.02	24.20	20.21
	Feb	36.55	36.46	36.55	36.41	23.18	19.63	23.00	19.54
	Mar	36.61	36.48	36.57	36.46	23.26	19.75	23.12	19.92
	Apr	36.64	36.63	36.52	36.48	25.46	20.36	25.13	20.61
	May	36.66	36.62	36.54	36.53	28.42	19.96	27.92	19.86
	Jun	36.77	36.58	36.56	36.51	30.47	19.51	29.90	18.83
	Jul	36.87	36.60	36.50	36.52	31.24	19.37	30.88	18.76
	Aug	36.89	36.61	36.65	36.69	30.72	18.77	31.46	18.59
	Sep	36.91	36.53	36.67	36.62	30.39	18.75	31.12	18.39
	Oct	36.99	36.46	36.59	36.41	30.44	18.95	29.74	18.39
	Nov	36.96	36.41	36.68	36.36	28.87	18.81	27.97	18.65
	Dec	36.75	36.31	36.65	36.29	26.28	19.15	26.00	19.05
2009	Jan	36.60	36.25	36.51	36.31	24.35	19.71	24.16	20.60
	Feb	36.58	36.29	36.48	36.37	23.69	20.26	23.46	21.29
	Mar	36.59	36.38	36.51	36.41	24.21	20.54	23.75	20.81
	Apr	36.66	36.67	36.57	36.46	25.42	21.05	24.78	20.18
	May	36.78	36.86	36.63	36.53	27.82	21.12	27.20	19.33
	Jun	36.90	36.77	36.63	36.49	30.72	20.14	29.92	18.76
	Jul	36.95	36.69	36.46	36.49	32.12	19.31	31.63	17.93
	Aug	36.98	36.49	36.47	36.67	32.22	18.25	32.12	17.64
	Sep	36.99	36.37	36.48	36.78	31.56	17.35	31.62	17.83
	Oct	36.94	36.51	36.45	36.67	30.59	17.40	30.17	17.93
	Nov	36.82	36.53	36.61	36.46	28.92	18.36	28.07	18.75
	Dec	36.71	36.38	36.65	36.33	26.52	19.42	26.36	19.44
2010	Jan	36.67	36.34	36.65	36.27	24.63	19.77	24.75	19.15
	Feb	36.68	36.40	36.64	36.32	23.92	20.18	24.01	19.88
	Mar	36.71	36.44	36.65	36.39	24.58	20.11	24.64	19.92
	Apr	36.75	36.52	36.70	36.52	26.57	19.72	25.90	18.97
	May	36.86	36.74	36.72	36.59	28.95	20.07	27.95	18.94
	Jun	36.94	36.90	36.70	36.63	30.46	20.30	30.23	18.82
	Jul	36.97	36.90	36.66	36.70	31.06	19.93	31.57	18.63
	Aug	36.97	36.87	36.77	36.65	31.31	19.34	32.15	18.63
	Sep	36.95	36.83	36.74	36.53	30.89	18.93	31.66	18.30
	Oct	36.92	36.63	36.46	36.40	30.35	18.66	30.16	18.16
	Nov	36.82	36.43	36.47	36.32	29.04	18.92	28.24	18.61
	Dec	36.71	36.35	36.60	36.30	26.59	19.21	26.19	18.90
2011	Jan	36.67	36.36	36.61	36.35	24.58	19.59	24.45	19.36
	Feb	36.64	36.46	36.55	36.40	23.47	20.58	23.39	20.32
	Mar	36.64	36.53	36.52	36.37	23.67	21.11	23.40	21.11
	Apr	36.69	36.58	36.56	36.41	25.48	20.95	24.92	21.31
	May	36.77	36.72	36.59	36.59	28.38	20.78	27.66	20.70
	Jun	36.84	36.76	36.55	36.64	30.93	20.17	29.84	20.14
	Jul	36.89	36.68	36.64	36.71	31.61	19.06	31.38	19.45
	Aug	36.86	36.62	36.78	36.86	30.60	18.87	32.04	19.37
	Sep	36.80	36.64	36.62	36.84	30.38	19.15	31.36	19.57
	Oct	36.85	36.74	36.52	36.80	30.54	19.32	30.20	19.44
	Nov	36.83	36.57	36.62	36.64	29.17	19.64	28.65	19.73
	Dec	36.72	36.35	36.63	36.47	26.85	19.71	26.61	20.06
2012	Jan	36.68	36.35	36.61	36.41	24.58	19.88	24.63	20.26
	Feb	36.65	36.50	36.57	36.40	23.21	20.52	23.47	20.48
	Mar	36.64	36.67	36.57	36.51	23.14	20.81	23.27	20.17
	Apr	36.67	36.76	36.60	36.55	24.87	20.75	24.48	20.57
	May	36.73	36.83	36.63	36.71	27.83	20.89	27.19	20.90
	Jun	36.79	36.91	36.61	36.89	30.51	20.56	30.14	19.40
	Jul	36.83	36.77	36.61	36.71	32.54	19.70	31.99	18.91
	Aug	36.88	36.60	36.69	36.60	32.54	18.97	32.37	18.43

	Sep	36.88	36.59	36.42	36.58	31.72	18.74	31.57	18.01
	Oct	36.81	36.52	36.21	36.41	31.37	18.89	29.92	18.32
	Nov	36.71	36.34	36.44	36.22	29.94	19.16	28.35	18.63
	Dec	36.62	36.25	36.56	36.13	27.46	19.43	26.69	19.13
2013	Jan	36.57	36.33	36.54	36.22	25.03	19.63	24.77	19.37
	Feb	36.55	36.44	36.52	36.31	23.93	20.14	23.46	20.19
	Mar	36.58	36.50	36.53	36.39	24.42	20.70	23.54	20.51
	Apr	36.64	36.57	36.60	36.47	26.00	20.42	24.76	20.18
	May	36.71	36.65	36.65	36.50	27.78	19.67	26.59	19.19
	Jun	36.79	36.68	36.64	36.53	29.69	19.72	29.34	18.90
	Jul	36.83	36.67	36.59	36.69	30.90	19.70	31.45	19.59
	Aug	36.78	36.65	36.50	36.82	30.37	19.20	31.54	19.66
	Sep	36.70	36.71	36.51	36.79	30.26	19.21	30.75	19.42
	Oct	36.70	36.72	36.70	36.66	30.86	19.03	30.21	18.39
	Nov	36.77	36.59	36.75	36.48	29.76	19.24	28.61	18.66
	Dec	36.76	36.41	36.69	36.34	27.24	19.63	26.20	20.11
2014	Jan	36.67	36.34	36.65	36.27	24.63	19.77	24.75	19.15
	Feb	36.68	36.40	36.64	36.32	23.92	20.18	24.01	19.88
	Mar	36.71	36.44	36.65	36.39	24.58	20.11	24.64	19.92
	Apr	36.75	36.52	36.70	36.52	26.57	19.72	25.90	18.97
	May	36.86	36.74	36.72	36.59	28.95	20.07	27.95	18.94
	Jun	36.94	36.90	36.70	36.63	30.46	20.30	30.23	18.82
	Jul	36.97	36.90	36.66	36.70	31.06	19.93	31.57	18.63
	Aug	36.97	36.87	36.77	36.65	31.31	19.34	32.15	18.63
	Sep	36.95	36.83	36.74	36.53	30.89	18.93	31.66	18.30
	Oct	36.92	36.63	36.46	36.40	30.35	18.66	30.16	18.16
	Nov	36.82	36.43	36.47	36.32	29.04	18.92	28.24	18.61
	Dec	36.71	36.35	36.60	36.30	26.59	19.21	26.19	18.90
2015	Jan	36.67	36.36	36.61	36.35	24.58	19.59	24.45	19.36
	Feb	36.64	36.46	36.55	36.40	23.47	20.58	23.39	20.32
	Mar	36.64	36.53	36.52	36.37	23.67	21.11	23.40	21.11
	Apr	36.69	36.58	36.56	36.41	25.48	20.95	24.92	21.31
	May	36.77	36.72	36.59	36.59	28.38	20.78	27.66	20.70
	Jun	36.84	36.76	36.55	36.64	30.93	20.17	29.84	20.14
	Jul	36.89	36.68	36.64	36.71	31.61	19.06	31.38	19.45
	Aug	36.86	36.62	36.78	36.86	30.60	18.87	32.04	19.37
	Sep	36.80	36.64	36.62	36.84	30.38	19.15	31.36	19.57
	Oct	36.85	36.74	36.52	36.80	30.54	19.32	30.20	19.44
	Nov	36.83	36.57	36.62	36.64	29.17	19.64	28.65	19.73
	Dec	36.72	36.35	36.63	36.47	26.85	19.71	26.61	20.06

APPENDIX B

Desalination Process Input Conditions in Delft3D

B.1 Desalination Inflow and Outflow at Each Plant in Arabian/Persian Gulf (F.R: Flow Rate, S: Salinity, T: Temperature).

Kuwait (Ashwaiba) MSF		Inflow			Outflow			Kuwait (Ashwaiba) MED		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	8.81	39.28	16.58	6.59	49.28	26.58	2004	Jan	1.65	39.28	16.58	1.08	54.28	26.58
	Feb	8.81	38.76	16.37	6.59	48.76	26.37		Feb	1.65	38.76	16.37	1.08	53.76	26.37
	Mar	8.81	38.62	18.33	6.59	48.62	28.33		Mar	1.65	38.62	18.33	1.08	53.62	28.33
	Apr	8.81	38.48	22.30	6.59	48.48	32.30		Apr	1.65	38.48	22.30	1.08	53.48	32.30
	May	8.81	38.37	25.93	6.59	48.37	35.93		May	1.65	38.37	25.93	1.08	53.37	35.93
	Jun	8.81	38.66	28.56	6.59	48.66	38.56		Jun	1.65	38.66	28.56	1.08	53.66	38.56
	Jul	8.81	38.97	29.28	6.59	48.97	39.28		Jul	1.65	38.97	29.28	1.08	53.97	39.28
	Aug	8.81	39.27	30.04	6.59	49.27	40.04		Aug	1.65	39.27	30.04	1.08	54.27	40.04
	Sep	8.81	39.70	28.72	6.59	49.70	38.72		Sep	1.65	39.70	28.72	1.08	54.70	38.72
	Oct	8.81	39.85	27.85	6.59	49.85	37.85		Oct	1.65	39.85	27.85	1.08	54.85	37.85
	Nov	8.81	39.63	24.62	6.59	49.63	34.62		Nov	1.65	39.63	24.62	1.08	54.63	34.62
	Dec	8.81	39.35	19.35	6.59	49.35	29.35		Dec	1.65	39.35	19.35	1.08	54.35	29.35
2005	Jan	8.90	39.18	16.25	6.65	49.18	26.25	2005	Jan	1.77	39.18	16.25	1.16	54.18	26.25
	Feb	8.90	38.84	16.05	6.65	48.84	26.05		Feb	1.77	38.84	16.05	1.16	53.84	26.05
	Mar	8.90	38.57	18.71	6.65	48.57	28.71		Mar	1.77	38.57	18.71	1.16	53.57	28.71
	Apr	8.90	38.53	22.05	6.65	48.53	32.05		Apr	1.77	38.53	22.05	1.16	53.53	32.05
	May	8.90	38.52	26.29	6.65	48.52	36.29		May	1.77	38.52	26.29	1.16	53.52	36.29
	Jun	8.90	38.69	28.26	6.65	48.69	38.56		Jun	1.77	38.69	28.26	1.16	53.69	38.56
	Jul	8.90	39.01	29.07	6.65	49.01	39.07		Jul	1.77	39.01	29.07	1.16	54.01	39.07
	Aug	8.90	39.30	29.98	6.65	49.30	39.98		Aug	1.77	39.30	29.98	1.16	54.30	39.98
	Sep	8.90	39.72	29.07	6.65	49.72	39.07		Sep	1.77	39.72	29.07	1.16	54.72	39.07
	Oct	8.90	39.95	27.05	6.65	49.95	37.05		Oct	1.77	39.95	27.05	1.16	54.95	37.05
	Nov	8.90	39.57	23.58	6.65	49.57	33.58		Nov	1.77	39.57	23.58	1.16	54.57	33.58
	Dec	8.90	38.89	19.69	6.65	48.89	29.69		Dec	1.77	38.89	19.69	1.16	53.89	29.69
2006	Jan	8.98	38.94	16.82	6.72	48.94	26.82	2006	Jan	1.89	38.94	16.82	1.24	53.94	26.82
	Feb	8.98	38.72	16.00	6.72	48.72	26.00		Feb	1.89	38.72	16.00	1.24	53.72	26.00
	Mar	8.98	38.46	18.49	6.72	48.46	28.49		Mar	1.89	38.46	18.49	1.24	53.46	28.49
	Apr	8.98	38.33	22.19	6.72	48.33	32.19		Apr	1.89	38.33	22.19	1.24	53.33	32.19
	May	8.98	38.34	25.72	6.72	48.34	35.72		May	1.89	38.34	25.72	1.24	53.34	35.72
	Jun	8.98	38.63	27.97	6.72	48.63	37.97		Jun	1.89	38.63	27.97	1.24	53.63	37.97
	Jul	8.98	38.90	29.18	6.72	48.90	39.18		Jul	1.89	38.90	29.18	1.24	53.90	39.18
	Aug	8.98	39.21	29.40	6.72	49.21	39.40		Aug	1.89	39.21	29.40	1.24	54.21	39.40
	Sep	8.98	39.61	29.58	6.72	49.61	39.58		Sep	1.89	39.61	29.58	1.24	54.61	39.58
	Oct	8.98	39.83	27.49	6.72	49.83	37.49		Oct	1.89	39.83	27.49	1.24	54.83	37.49
	Nov	8.98	39.50	23.53	6.72	49.50	33.53		Nov	1.89	39.50	23.53	1.24	54.50	33.53
	Dec	8.98	39.10	19.67	6.72	49.10	29.67		Dec	1.89	39.10	19.67	1.24	54.10	29.67
2007	Jan	9.07	39.03	16.71	6.78	49.03	26.71	2007	Jan	2.01	39.03	16.71	1.31	54.03	26.71
	Feb	9.07	38.92	16.19	6.78	48.92	26.19		Feb	2.01	38.92	16.19	1.31	53.92	26.19
	Mar	9.07	38.59	18.73	6.78	48.59	28.73		Mar	2.01	38.59	18.73	1.31	53.59	28.73
	Apr	9.07	38.41	22.46	6.78	48.41	32.46		Apr	2.01	38.41	22.46	1.31	53.41	32.46
	May	9.07	38.49	25.34	6.78	48.49	35.34		May	2.01	38.49	25.34	1.31	53.49	35.34
	Jun	9.07	38.71	28.05	6.78	48.71	38.05		Jun	2.01	38.71	28.05	1.31	53.71	38.05
	Jul	9.07	39.07	29.26	6.78	49.07	39.26		Jul	2.01	39.07	29.26	1.31	54.07	39.26
	Aug	9.07	39.31	29.73	6.78	49.31	39.73		Aug	2.01	39.31	29.73	1.31	54.31	39.73
	Sep	9.07	39.66	29.32	6.78	49.66	39.32		Sep	2.01	39.66	29.32	1.31	54.66	39.32
	Oct	9.07	39.82	27.28	6.78	49.82	37.28		Oct	2.01	39.82	27.28	1.31	54.82	37.28
	Nov	9.07	39.70	24.63	6.78	49.70	34.63		Nov	2.01	39.70	24.63	1.31	54.70	34.63
	Dec	9.07	39.34	19.54	6.78	49.34	29.54		Dec	2.01	39.34	19.54	1.31	54.34	29.54
2008	Jan	9.15	39.02	16.28	6.85	49.02	26.28	2008	Jan	2.13	39.02	16.28	1.39	54.02	26.28
	Feb	9.15	38.91	16.29	6.85	48.91	26.29		Feb	2.13	38.91	16.29	1.39	53.91	26.29

	Mar	9.15	38.57	18.24	6.85	48.57	28.24		Mar	2.13	38.57	18.24	1.39	53.57	28.24
	Apr	9.15	38.42	22.05	6.85	48.42	32.05		Apr	2.13	38.42	22.05	1.39	53.42	32.05
	May	9.15	38.33	25.85	6.85	48.33	35.85		May	2.13	38.33	25.85	1.39	53.33	35.85
	Jun	9.15	38.55	28.03	6.85	48.55	38.03		Jun	2.13	38.55	28.03	1.39	53.55	38.03
	Jul	9.15	38.85	29.36	6.85	48.85	39.36		Jul	2.13	38.85	29.36	1.39	53.85	39.36
	Aug	9.15	39.21	29.30	6.85	49.21	39.30		Aug	2.13	39.21	29.30	1.39	54.21	39.30
	Sep	9.15	39.59	29.33	6.85	49.59	39.33		Sep	2.13	39.59	29.33	1.39	54.59	39.33
	Oct	9.15	39.71	27.50	6.85	49.71	37.50		Oct	2.13	39.71	27.50	1.39	54.71	37.50
	Nov	9.15	39.52	23.72	6.85	49.52	33.72		Nov	2.13	39.52	23.72	1.39	54.52	33.72
	Dec	9.15	39.54	19.50	6.85	49.54	29.50		Dec	2.13	39.54	19.50	1.39	54.54	29.50
2009	Jan	9.24	39.23	16.53	6.91	49.23	26.53	2009	Jan	2.25	39.23	16.53	1.47	54.23	26.53
	Feb	9.24	38.87	16.07	6.91	48.87	26.07		Feb	2.25	38.87	16.07	1.47	53.87	26.07
	Mar	9.24	38.57	18.21	6.91	48.57	28.21		Mar	2.25	38.57	18.21	1.47	53.57	28.21
	Apr	9.24	38.58	22.18	6.91	48.58	32.18		Apr	2.25	38.58	22.18	1.47	53.58	32.18
	May	9.24	38.54	25.85	6.91	48.54	35.85		May	2.25	38.54	25.85	1.47	53.54	35.85
	Jun	9.24	38.76	27.99	6.91	48.76	37.99		Jun	2.25	38.76	27.99	1.47	53.76	37.99
	Jul	9.24	38.97	29.62	6.91	48.97	39.62		Jul	2.25	38.97	29.62	1.47	53.97	39.62
	Aug	9.24	39.32	29.01	6.91	49.32	39.01		Aug	2.25	39.32	29.01	1.47	54.32	39.01
	Sep	9.24	39.66	27.96	6.91	49.66	37.96		Sep	2.25	39.66	27.96	1.47	54.66	37.96
	Oct	9.24	39.84	27.09	6.91	49.84	37.09		Oct	2.25	39.84	27.09	1.47	54.84	37.09
	Nov	9.24	39.49	23.52	6.91	49.49	33.52		Nov	2.25	39.49	23.52	1.47	54.49	33.52
	Dec	9.24	39.17	19.88	6.91	49.17	29.88		Dec	2.25	39.17	19.88	1.47	54.17	29.88
2010	Jan	9.33	38.97	17.00	6.97	48.97	27.00	2010	Jan	2.36	38.97	17.00	1.55	53.97	27.00
	Feb	9.33	38.70	16.05	6.97	48.70	26.05		Feb	2.36	38.70	16.05	1.55	53.70	26.05
	Mar	9.33	38.47	18.48	6.97	48.47	28.48		Mar	2.36	38.47	18.48	1.55	53.47	28.48
	Apr	9.33	38.46	22.21	6.97	48.46	32.21		Apr	2.36	38.46	22.21	1.55	53.46	32.21
	May	9.33	38.45	25.87	6.97	48.45	35.87		May	2.36	38.45	25.87	1.55	53.45	35.87
	Jun	9.33	38.61	28.03	6.97	48.61	38.03		Jun	2.36	38.61	28.03	1.55	53.61	38.03
	Jul	9.33	38.86	29.11	6.97	48.86	39.11		Jul	2.36	38.86	29.11	1.55	53.86	39.11
	Aug	9.33	39.09	29.56	6.97	49.09	39.56		Aug	2.36	39.09	29.56	1.55	54.09	39.56
	Sep	9.33	39.59	29.62	6.97	49.59	39.62		Sep	2.36	39.59	29.62	1.55	54.59	39.62
	Oct	9.33	39.93	27.99	6.97	49.93	37.99		Oct	2.36	39.93	27.99	1.55	54.93	37.99
	Nov	9.33	39.90	23.84	6.97	49.90	33.84		Nov	2.36	39.90	23.84	1.55	54.90	33.84
	Dec	9.33	39.46	19.87	6.97	49.46	29.87		Dec	2.36	39.46	19.87	1.55	54.46	29.87
2011	Jan	9.41	39.36	16.89	7.04	49.36	26.89	2011	Jan	2.48	39.36	16.89	1.62	54.36	26.89
	Feb	9.41	39.09	16.16	7.04	49.09	26.16		Feb	2.48	39.09	16.16	1.62	54.09	26.16
	Mar	9.41	38.77	18.74	7.04	48.77	28.74		Mar	2.48	38.77	18.74	1.62	53.77	28.74
	Apr	9.41	38.71	22.22	7.04	48.71	32.22		Apr	2.48	38.71	22.22	1.62	53.71	32.22
	May	9.41	38.66	25.48	7.04	48.66	35.48		May	2.48	38.66	25.48	1.62	53.66	35.48
	Jun	9.41	38.77	27.98	7.04	48.77	37.98		Jun	2.48	38.77	27.98	1.62	53.77	37.98
	Jul	9.41	39.04	28.92	7.04	49.04	38.92		Jul	2.48	39.04	28.92	1.62	54.04	38.92
	Aug	9.41	39.28	29.66	7.04	49.28	39.66		Aug	2.48	39.28	29.66	1.62	54.28	39.66
	Sep	9.41	39.65	28.67	7.04	49.65	38.67		Sep	2.48	39.65	28.67	1.62	54.65	38.67
	Oct	9.41	39.97	27.41	7.04	49.97	37.41		Oct	2.48	39.97	27.41	1.62	54.97	37.41
	Nov	9.41	40.09	23.39	7.04	50.09	33.39		Nov	2.48	40.09	23.39	1.62	55.09	33.39
	Dec	9.41	39.74	19.24	7.04	49.74	29.24		Dec	2.48	39.74	19.24	1.62	54.74	29.24
2012	Jan	9.50	39.46	16.42	7.10	49.46	26.42	2012	Jan	2.60	39.46	16.42	1.70	54.46	26.42
	Feb	9.50	39.06	16.20	7.10	49.06	26.20		Feb	2.60	39.06	16.20	1.70	54.06	26.20
	Mar	9.50	38.73	18.39	7.10	48.73	28.39		Mar	2.60	38.73	18.39	1.70	53.73	28.39
	Apr	9.50	38.60	22.16	7.10	48.60	32.16		Apr	2.60	38.60	22.16	1.70	53.60	32.16
	May	9.50	38.61	26.03	7.10	48.61	36.03		May	2.60	38.61	26.03	1.70	53.61	36.03
	Jun	9.50	38.72	28.11	7.10	48.72	38.11		Jun	2.60	38.72	28.11	1.70	53.72	38.11
	Jul	9.50	38.98	29.59	7.10	48.98	39.59		Jul	2.60	38.98	29.59	1.70	53.98	39.59
	Aug	9.50	39.27	30.06	7.10	49.27	40.06		Aug	2.60	39.27	30.06	1.70	54.27	40.06
	Sep	9.50	39.70	28.45	7.10	49.70	38.45		Sep	2.60	39.70	28.45	1.70	54.70	38.45
	Oct	9.50	39.82	27.25	7.10	49.82	37.25		Oct	2.60	39.82	27.25	1.70	54.82	37.25
	Nov	9.50	39.75	23.54	7.10	49.75	33.54		Nov	2.60	39.75	23.54	1.70	54.75	33.54
	Dec	9.50	39.60	19.77	7.10	49.60	29.77		Dec	2.60	39.60	19.77	1.70	54.60	29.77
2013	Jan	9.59	39.19	16.73	7.16	49.19	26.73	2013	Jan	2.72	39.19	16.73	1.78	54.19	26.73
	Feb	9.59	38.90	15.99	7.16	48.90	25.99		Feb	2.72	38.90	15.99	1.78	53.90	25.99
	Mar	9.59	38.65	18.25	7.16	48.65	28.25		Mar	2.72	38.65	18.25	1.78	53.65	28.25
	Apr	9.59	38.47	22.23	7.16	48.47	32.23		Apr	2.72	38.47	22.23	1.78	53.47	32.23
	May	9.59	38.49	26.02	7.16	48.49	36.02		May	2.72	38.49	26.02	1.78	53.49	36.02
	Jun	9.59	38.65	28.01	7.16	48.65	38.01		Jun	2.72	38.65	28.01	1.78	53.65	38.01

	Jul	9.59	38.87	29.25	7.16	48.87	39.25		Jul	2.72	38.87	29.25	1.78	53.87	39.25
	Aug	9.59	39.15	28.96	7.16	49.15	38.96		Aug	2.72	39.15	28.96	1.78	54.15	38.96
	Sep	9.59	39.57	29.06	7.16	49.57	39.06		Sep	2.72	39.57	29.06	1.78	54.57	39.06
	Oct	9.59	39.94	27.12	7.16	49.94	37.12		Oct	2.72	39.94	27.12	1.78	54.94	37.12
	Nov	9.59	40.03	23.55	7.16	50.03	33.55		Nov	2.72	40.03	23.55	1.78	55.03	33.55
2014	Dec	9.59	39.46	19.89	7.16	49.46	29.89	2014	Dec	2.72	39.46	19.89	1.78	54.46	29.89
	Jan	9.67	39.41	16.50	7.23	49.41	26.50		Jan	2.84	39.41	16.50	1.85	54.41	26.50
	Feb	9.67	39.03	16.15	7.23	49.03	26.15		Feb	2.84	39.03	16.15	1.85	54.03	26.15
	Mar	9.67	38.74	18.38	7.23	48.74	28.38		Mar	2.84	38.74	18.38	1.85	53.74	28.38
	Apr	9.67	38.81	22.20	7.23	48.81	32.20		Apr	2.84	38.81	22.20	1.85	53.81	32.20
	May	9.67	38.73	25.65	7.23	48.73	35.65		May	2.84	38.73	25.65	1.85	53.73	35.65
	Jun	9.67	38.94	28.27	7.23	48.94	38.27		Jun	2.84	38.94	28.27	1.85	53.94	38.27
	Jul	9.67	39.13	29.48	7.23	49.13	39.48		Jul	2.84	39.13	29.48	1.85	54.13	39.48
	Aug	9.67	39.34	29.14	7.23	49.34	39.14		Aug	2.84	39.34	29.14	1.85	54.34	39.14
	Sep	9.67	39.72	28.90	7.23	49.72	38.90		Sep	2.84	39.72	28.90	1.85	54.72	38.90
	Oct	9.67	40.09	27.42	7.23	50.09	37.42		Oct	2.84	40.09	27.42	1.85	55.09	37.42
	Nov	9.67	40.19	23.25	7.23	50.19	33.25		Nov	2.84	40.19	23.25	1.85	55.19	33.25
2015	Dec	9.67	39.81	19.48	7.23	49.81	29.48	2015	Dec	2.84	39.81	19.48	1.85	54.81	29.48
	Jan	9.76	39.69	16.77	7.29	49.69	26.77		Jan	2.95	39.69	16.77	1.93	54.69	26.77
	Feb	9.76	39.44	16.18	7.29	49.44	26.18		Feb	2.95	39.44	16.18	1.93	54.44	26.18
	Mar	9.76	38.74	18.38	7.29	48.74	28.38		Mar	2.95	38.74	18.38	1.93	53.74	28.38
	Apr	9.76	38.85	22.28	7.29	48.85	32.28		Apr	2.95	38.85	22.28	1.93	53.85	32.28
	May	9.76	38.77	25.58	7.29	48.77	35.58		May	2.95	38.77	25.58	1.93	53.77	35.58
	Jun	9.76	38.87	27.83	7.29	48.87	37.83		Jun	2.95	38.87	27.83	1.93	53.87	37.83
	Jul	9.76	39.23	28.78	7.29	49.23	38.78		Jul	2.95	39.23	28.78	1.93	54.23	38.78
	Aug	9.76	39.49	30.01	7.29	49.49	40.01		Aug	2.95	39.49	30.01	1.93	54.49	40.01
	Sep	9.76	39.88	29.26	7.29	49.88	39.26		Sep	2.95	39.88	29.26	1.93	54.88	39.26
	Oct	9.76	40.16	27.49	7.29	50.16	37.49		Oct	2.95	40.16	27.49	1.93	55.16	37.49
	Nov	9.76	40.25	23.78	7.29	50.25	33.78		Nov	2.95	40.25	23.78	1.93	55.25	33.78
	Dec	9.76	39.91	19.85	7.29	49.91	29.85		Dec	2.95	39.91	19.85	1.93	54.91	29.85

Kuwait (Ashwaiba) RO		Inflow			Outflow			Kuwait (Doha) MSF		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	2.04	39.28	16.58	1.02	84.08	17.58	2004	Jan	32.10	40.18	17.84	24.10	50.18	27.84
	Feb	2.04	38.76	16.37	1.02	83.56	17.37		Feb	32.10	39.08	16.90	24.10	49.08	26.90
	Mar	2.04	38.62	18.33	1.02	83.42	19.33		Mar	32.10	39.06	18.27	24.10	49.06	28.27
	Apr	2.04	38.48	22.30	1.02	83.28	23.30		Apr	32.10	38.68	21.22	24.10	48.68	31.22
	May	2.04	38.37	25.93	1.02	83.17	26.93		May	32.10	38.26	23.84	24.10	48.26	33.84
	Jun	2.04	38.66	28.56	1.02	83.46	29.56		Jun	32.10	38.04	26.08	24.10	48.04	36.08
	Jul	2.04	38.97	29.28	1.02	83.77	30.28		Jul	32.10	38.68	28.27	24.10	48.68	38.27
	Aug	2.04	39.27	30.04	1.02	84.07	31.04		Aug	32.10	38.80	29.58	24.10	48.80	39.58
	Sep	2.04	39.70	28.72	1.02	84.50	29.72		Sep	32.10	39.44	28.23	24.10	49.44	38.23
	Oct	2.04	39.85	27.85	1.02	84.65	28.85		Oct	32.10	39.64	27.55	24.10	49.64	37.55
	Nov	2.04	39.63	24.62	1.02	84.43	25.62		Nov	32.10	39.94	25.35	24.10	49.94	35.35
	Dec	2.04	39.35	19.35	1.02	84.15	20.35		Dec	32.10	39.92	21.04	24.10	49.92	31.04
2005	Jan	2.18	39.18	16.25	1.09	83.98	17.25	2005	Jan	32.10	39.75	17.86	24.10	49.75	27.86
	Feb	2.18	38.84	16.05	1.09	83.64	17.05		Feb	32.10	39.43	16.64	24.10	49.43	26.64
	Mar	2.18	38.57	18.71	1.09	83.37	19.71		Mar	32.10	38.48	18.32	24.10	48.48	28.32
	Apr	2.18	38.53	22.05	1.09	83.33	23.05		Apr	32.10	38.63	20.58	24.10	48.63	30.58
	May	2.18	38.52	26.29	1.09	83.32	27.29		May	32.10	38.34	24.43	24.10	48.34	34.43
	Jun	2.18	38.69	28.26	1.09	83.49	29.56		Jun	32.10	38.30	26.29	24.10	48.30	36.29
	Jul	2.18	39.01	29.07	1.09	83.91	30.07		Jul	32.10	38.66	28.35	24.10	48.66	38.35
	Aug	2.18	39.30	29.98	1.09	84.10	30.98		Aug	32.10	38.97	29.21	24.10	48.97	39.21
	Sep	2.18	39.72	29.07	1.09	84.52	30.07		Sep	32.10	39.28	28.68	24.10	49.28	38.68
	Oct	2.18	39.95	27.05	1.09	84.75	28.05		Oct	32.10	39.82	27.19	24.10	49.82	37.19
	Nov	2.18	39.57	23.58	1.09	84.37	24.58		Nov	32.10	39.98	24.57	24.10	49.98	34.57
	Dec	2.18	38.89	19.69	1.09	83.69	20.69		Dec	32.10	39.91	20.94	24.10	49.91	30.94
2006	Jan	2.33	38.94	16.82	1.16	83.74	17.82	2006	Jan	32.10	39.79	17.89	24.10	49.79	27.89
	Feb	2.33	38.72	16.00	1.16	83.52	17.00		Feb	32.10	38.81	16.68	24.10	48.81	26.68
	Mar	2.33	38.46	18.49	1.16	83.26	19.49		Mar	32.10	38.66	18.33	24.10	48.66	28.33
	Apr	2.33	38.33	22.19	1.16	83.13	23.19		Apr	32.10	38.19	20.76	24.10	48.19	30.76

	May	2.33	38.34	25.72	1.16	83.14	26.72		May	32.10	38.14	23.72	24.10	48.14	33.72
	Jun	2.33	38.63	27.97	1.16	83.43	28.97		Jun	32.10	38.34	26.36	24.10	48.34	36.36
	Jul	2.33	38.90	29.18	1.16	83.70	30.18		Jul	32.10	38.57	28.35	24.10	48.57	38.35
	Aug	2.33	39.21	29.40	1.16	84.01	30.40		Aug	32.10	38.87	28.83	24.10	48.87	38.83
	Sep	2.33	39.61	29.58	1.16	84.41	30.58		Sep	32.10	39.27	29.02	24.10	49.27	39.02
	Oct	2.33	39.83	27.49	1.16	84.63	28.49		Oct	32.10	39.73	27.77	24.10	49.73	37.77
	Nov	2.33	39.50	23.53	1.16	84.30	24.53		Nov	32.10	39.87	24.56	24.10	49.87	34.56
2007	Dec	2.33	39.10	19.67	1.16	83.90	20.67	2007	Dec	32.10	39.57	20.86	24.10	49.57	30.86
	Jan	2.47	39.03	16.71	1.24	83.83	17.71		Jan	32.10	39.63	17.98	24.10	49.63	27.98
	Feb	2.47	38.92	16.19	1.24	83.72	17.19		Feb	32.10	38.99	16.52	24.10	48.99	26.52
	Mar	2.47	38.59	18.73	1.24	83.39	19.73		Mar	32.10	38.78	18.16	24.10	48.78	28.16
	Apr	2.47	38.41	22.46	1.24	83.21	23.46		Apr	32.10	38.30	20.84	24.10	48.30	30.84
	May	2.47	38.49	25.34	1.24	83.29	26.34		May	32.10	38.51	23.41	24.10	48.51	33.41
	Jun	2.47	38.71	28.05	1.24	83.51	38.05		Jun	32.10	38.31	26.05	24.10	48.31	36.05
	Jul	2.47	39.07	29.26	1.24	83.87	30.26		Jul	32.10	38.79	28.43	24.10	48.79	38.43
	Aug	2.47	39.31	29.73	1.24	84.11	30.73		Aug	32.10	38.92	29.12	24.10	48.92	39.12
	Sep	2.47	39.66	29.32	1.24	84.46	30.32		Sep	32.10	39.39	28.74	24.10	49.39	38.74
	Oct	2.47	39.82	27.28	1.24	84.62	28.28		Oct	32.10	39.61	27.07	24.10	49.61	37.07
	Nov	2.47	39.70	24.63	1.24	84.50	25.63		Nov	32.10	40.00	25.34	24.10	50.00	35.34
2008	Dec	2.47	39.34	19.54	1.24	84.14	20.54	2008	Dec	32.10	39.95	21.32	24.10	49.95	31.32
	Jan	2.62	39.02	16.28	1.31	83.82	17.28		Jan	32.10	39.68	17.75	24.10	49.68	27.75
	Feb	2.62	38.91	16.29	1.31	83.71	17.29		Feb	32.10	38.37	16.83	24.10	49.37	26.83
	Mar	2.62	38.57	18.24	1.31	83.37	19.24		Mar	32.10	38.92	18.20	24.10	48.92	28.20
	Apr	2.62	38.42	22.05	1.31	83.22	23.05		Apr	32.10	38.41	20.68	24.10	48.41	30.68
	May	2.62	38.33	25.85	1.31	83.13	26.85		May	32.10	38.43	23.98	24.10	48.43	33.98
	Jun	2.62	38.55	28.03	1.31	83.35	29.03		Jun	32.10	38.22	26.29	24.10	48.22	36.29
	Jul	2.62	38.85	29.36	1.31	83.65	30.36		Jul	32.10	38.61	28.17	24.10	48.61	38.17
	Aug	2.62	39.21	29.30	1.31	84.01	30.30		Aug	32.10	38.78	29.05	24.10	48.78	39.05
	Sep	2.62	39.59	29.33	1.31	84.39	30.33		Sep	32.10	39.23	28.96	24.10	49.23	38.96
	Oct	2.62	39.71	27.50	1.31	84.51	28.50		Oct	32.10	39.73	27.61	24.10	49.73	37.61
	Nov	2.62	39.52	23.72	1.31	84.32	24.72		Nov	32.10	39.92	24.66	24.10	49.92	34.66
2009	Dec	2.62	39.54	19.50	1.31	84.34	20.50	2009	Dec	32.10	39.93	20.98	24.10	49.93	30.98
	Jan	2.76	39.23	16.53	1.38	84.03	17.53		Jan	32.10	39.66	17.50	24.10	49.66	27.50
	Feb	2.76	38.87	16.07	1.38	83.67	17.07		Feb	32.10	39.31	16.56	24.10	49.31	26.56
	Mar	2.76	38.57	18.21	1.38	83.37	19.21		Mar	32.10	39.00	18.09	24.10	49.00	28.09
	Apr	2.76	38.58	22.18	1.38	83.38	23.18		Apr	32.10	38.63	20.82	24.10	48.63	30.82
	May	2.76	38.54	25.85	1.38	83.34	26.85		May	32.10	38.34	23.84	24.10	48.34	33.84
	Jun	2.76	38.76	27.99	1.38	83.56	28.99		Jun	32.10	38.53	26.20	24.10	48.53	36.20
	Jul	2.76	38.97	29.62	1.38	83.77	30.62		Jul	32.10	38.64	28.28	24.10	48.64	38.28
	Aug	2.76	39.32	29.01	1.38	84.12	30.01		Aug	32.10	38.99	28.80	24.10	48.99	38.80
	Sep	2.76	39.66	27.96	1.38	84.46	28.96		Sep	32.10	39.36	28.00	24.10	49.36	38.00
	Oct	2.76	39.84	27.09	1.38	84.64	28.09		Oct	32.10	39.25	26.84	24.10	49.25	36.84
	Nov	2.76	39.49	23.52	1.38	84.29	24.52		Nov	32.10	39.98	24.63	24.10	49.98	34.63
2010	Dec	2.76	39.17	19.88	1.38	83.97	20.88	2010	Dec	32.10	39.92	21.34	24.10	49.92	31.34
	Jan	2.91	38.97	17.00	1.45	83.77	18.00		Jan	32.10	39.66	18.11	24.10	49.66	28.11
	Feb	2.91	38.70	16.05	1.45	83.50	17.05		Feb	32.10	39.17	16.55	24.10	49.17	17.05
	Mar	2.91	38.47	18.48	1.45	83.27	19.48		Mar	32.10	38.72	18.03	24.10	48.72	28.03
	Apr	2.91	38.46	22.21	1.45	83.26	23.21		Apr	32.10	38.41	21.41	24.10	48.41	31.41
	May	2.91	38.45	25.87	1.45	83.25	26.87		May	32.10	38.00	23.69	24.10	48.00	33.69
	Jun	2.91	38.61	28.03	1.45	83.41	29.03		Jun	32.10	37.98	25.86	24.10	47.98	35.86
	Jul	2.91	38.86	29.11	1.45	83.66	30.11		Jul	32.10	38.55	28.08	24.10	48.55	38.08
	Aug	2.91	39.09	29.56	1.45	83.89	30.56		Aug	32.10	38.66	28.99	24.10	48.66	38.99
	Sep	2.91	39.59	29.62	1.45	84.39	30.62		Sep	32.10	39.27	29.57	24.10	49.27	39.57
	Oct	2.91	39.93	27.99	1.45	84.73	28.99		Oct	32.10	39.79	28.16	24.10	49.79	38.16
	Nov	2.91	39.90	23.84	1.45	84.70	24.84		Nov	32.10	40.09	24.99	24.10	50.09	34.99
2011	Dec	2.91	39.46	19.87	1.45	84.26	20.87	2011	Dec	32.10	40.06	21.30	24.10	50.06	31.30
	Jan	3.05	39.36	16.89	1.53	84.16	17.89		Jan	32.10	39.93	18.10	24.10	49.93	28.10
	Feb	3.05	39.09	16.16	1.53	83.89	17.16		Feb	32.10	39.36	16.67	24.10	49.36	26.67
	Mar	3.05	38.77	18.74	1.53	83.57	19.74		Mar	32.10	38.88	18.09	24.10	48.88	28.09
	Apr	3.05	38.71	22.22	1.53	83.51	23.22		Apr	32.10	38.72	21.38	24.10	48.72	31.38
	May	3.05	38.66	25.48	1.53	83.46	26.48		May	32.10	38.56	24.22	24.10	48.56	34.22
	Jun	3.05	38.77	27.98	1.53	83.57	28.98		Jun	32.10	38.37	26.59	24.10	48.37	36.59
	Jul	3.05	39.04	28.92	1.53	83.84	29.92		Jul	32.10	38.80	28.16	24.10	48.80	38.16
	Aug	3.05	39.28	29.66	1.53	84.08	30.66		Aug	32.10	38.92	29.15	24.10	48.92	39.15

	Sep	3.05	39.65	28.67	1.53	84.45	29.67		Sep	32.10	39.28	28.30	24.10	49.28	38.30
	Oct	3.05	39.97	27.41	1.53	84.77	28.41		Oct	32.10	39.64	27.14	24.10	49.64	37.14
	Nov	3.05	40.09	23.39	1.53	84.89	24.39		Nov	32.10	39.80	24.11	24.10	49.80	34.11
	Dec	3.05	39.74	19.24	1.53	84.54	20.24		Dec	32.10	40.14	20.93	24.10	50.14	30.93
2012	Jan	3.20	39.46	16.42	1.60	84.26	17.42	2012	Jan	32.10	39.89	17.63	24.10	49.89	27.63
	Feb	3.20	39.06	16.20	1.60	83.86	17.20		Feb	32.10	39.61	16.83	24.10	49.61	26.83
	Mar	3.20	38.73	18.39	1.60	83.53	19.39		Mar	32.10	38.87	17.98	24.10	48.87	27.98
	Apr	3.20	38.60	22.16	1.60	83.40	23.16		Apr	32.10	38.70	21.16	24.10	48.70	31.16
	May	3.20	38.61	26.03	1.60	83.41	27.03		May	32.10	38.46	23.97	24.10	48.46	33.97
	Jun	3.20	38.72	28.11	1.60	83.52	29.11		Jun	32.10	38.52	26.26	24.10	48.52	36.26
	Jul	3.20	38.98	29.59	1.60	83.78	30.59		Jul	32.10	38.71	28.75	24.10	48.71	38.75
	Aug	3.20	39.27	30.06	1.60	84.07	31.06		Aug	32.10	38.91	29.54	24.10	48.91	39.54
	Sep	3.20	39.70	28.45	1.60	84.50	29.45		Sep	32.10	39.15	28.00	24.10	49.15	38.00
	Oct	3.20	39.82	27.25	1.60	84.62	28.25		Oct	32.10	39.72	27.25	24.10	49.72	37.25
	Nov	3.20	39.75	23.54	1.60	84.55	24.54		Nov	32.10	40.05	24.64	24.10	50.05	34.64
	Dec	3.20	39.60	19.77	1.60	84.40	20.77		Dec	32.10	40.07	21.33	24.10	50.07	31.23
2013	Jan	3.35	39.19	16.73	1.67	83.99	17.73	2013	Jan	32.10	39.29	17.57	24.10	49.29	27.57
	Feb	3.35	38.90	15.99	1.67	83.70	16.99		Feb	32.10	39.52	16.83	24.10	49.52	26.83
	Mar	3.35	38.65	18.25	1.67	83.45	19.25		Mar	32.10	39.06	17.83	24.10	49.06	27.83
	Apr	3.35	38.47	22.23	1.67	83.27	23.23		Apr	32.10	38.46	21.15	24.10	48.46	31.15
	May	3.35	38.49	26.02	1.67	83.29	27.02		May	32.10	38.32	23.93	24.10	48.32	33.93
	Jun	3.35	38.65	28.01	1.67	83.45	29.01		Jun	32.10	38.41	26.62	24.10	48.41	36.62
	Jul	3.35	38.87	29.25	1.67	83.67	30.25		Jul	32.10	38.61	28.32	24.10	48.61	38.32
	Aug	3.35	39.15	28.96	1.67	83.95	29.96		Aug	32.10	38.92	28.73	24.10	48.92	38.73
	Sep	3.35	39.57	29.06	1.67	84.37	30.06		Sep	32.10	39.05	28.82	24.10	49.05	38.82
	Oct	3.35	39.94	27.12	1.67	84.74	28.12		Oct	32.10	39.60	27.39	24.10	49.60	37.39
	Nov	3.35	40.03	23.55	1.67	84.83	24.55		Nov	32.10	39.74	24.22	24.10	49.74	34.22
	Dec	3.35	39.46	19.89	1.67	84.26	20.89		Dec	32.10	40.10	21.04	24.10	50.10	31.04
2014	Jan	3.49	39.41	16.50	1.75	84.21	17.50	2014	Jan	32.10	39.79	17.69	24.10	49.79	27.69
	Feb	3.49	39.03	16.15	1.75	83.83	17.15		Feb	32.10	39.51	16.85	24.10	49.51	26.85
	Mar	3.49	38.74	18.38	1.75	83.54	19.38		Mar	32.10	38.99	18.09	24.10	48.99	28.09
	Apr	3.49	38.81	22.20	1.75	83.61	23.20		Apr	32.10	38.82	20.65	24.10	48.82	30.65
	May	3.49	38.73	25.65	1.75	83.53	26.65		May	32.10	38.62	23.64	24.10	48.62	33.64
	Jun	3.49	38.94	28.27	1.75	83.74	29.27		Jun	32.10	38.72	26.21	24.10	48.72	36.21
	Jul	3.49	39.13	29.48	1.75	83.93	30.48		Jul	32.10	38.84	28.69	24.10	48.84	38.69
	Aug	3.49	39.34	29.14	1.75	84.14	30.14		Aug	32.10	38.84	28.73	24.10	48.84	38.73
	Sep	3.49	39.72	28.90	1.75	84.52	29.90		Sep	32.10	39.31	28.54	24.10	49.31	38.54
	Oct	3.49	40.09	27.42	1.75	84.89	28.42		Oct	32.10	39.70	27.35	24.10	49.70	37.35
	Nov	3.49	40.19	23.25	1.75	84.99	24.25		Nov	32.10	40.10	24.77	24.10	50.10	34.77
	Dec	3.49	39.81	19.48	1.75	84.61	20.48		Dec	32.10	40.29	21.06	24.10	50.29	31.06
2015	Jan	3.64	39.69	16.77	1.82	84.49	17.77	2015	Jan	32.10	40.16	18.09	24.10	50.16	28.09
	Feb	3.64	39.44	16.18	1.82	84.24	17.18		Feb	32.10	39.76	16.77	24.10	49.76	26.77
	Mar	3.64	38.74	18.38	1.82	83.54	19.38		Mar	32.10	38.99	18.09	24.10	48.99	28.09
	Apr	3.64	38.85	22.28	1.82	83.65	23.28		Apr	32.10	38.88	20.93	24.10	48.88	30.93
	May	3.64	38.77	25.58	1.82	83.57	26.58		May	32.10	38.72	24.36	24.10	48.72	34.36
	Jun	3.64	38.87	27.83	1.82	83.67	28.83		Jun	32.10	38.78	26.36	24.10	48.78	36.36
	Jul	3.64	39.23	28.78	1.82	84.03	29.78		Jul	32.10	39.00	28.36	24.10	49.00	38.36
	Aug	3.64	39.49	30.01	1.82	84.29	31.01		Aug	32.10	39.08	29.39	24.10	49.08	39.39
	Sep	3.64	39.88	29.26	1.82	84.68	30.26		Sep	32.10	39.52	29.18	24.10	49.52	39.18
	Oct	3.64	40.16	27.49	1.82	84.96	28.49		Oct	32.10	39.88	27.35	24.10	49.88	37.35
	Nov	3.64	40.25	23.78	1.82	85.05	24.78		Nov	32.10	40.38	24.71	24.10	50.38	34.71
	Dec	3.64	39.91	19.85	1.82	84.71	20.85		Dec	32.10	40.33	21.23	24.10	50.33	31.23

Kuwait (Ashwaikh) RO		Inflow			Outflow			Kuwait (Ashwaikh) MSF		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	2.04	40.18	17.84	1.02	84.98	18.84	2004	Jan	4.10	40.18	17.84	3.10	50.18	27.84
	Feb	2.04	39.08	16.90	1.02	83.88	17.90		Feb	4.10	39.08	16.90	3.10	49.08	26.90
	Mar	2.04	39.06	18.27	1.02	83.86	19.27		Mar	4.10	39.06	18.27	3.10	49.06	28.27
	Apr	2.04	38.68	21.22	1.02	83.48	22.22		Apr	4.10	38.68	21.22	3.10	48.68	31.22
	May	2.04	38.26	23.84	1.02	83.06	24.84		May	4.10	38.26	23.84	3.10	48.26	33.84
	Jun	2.04	38.04	26.08	1.02	83.84	27.08		Jun	4.10	38.04	26.08	3.10	48.04	36.08

	Jul	2.04	38.68	28.27	1.02	83.48	29.27		Jul	4.10	38.68	28.27	3.10	48.68	38.27
	Aug	2.04	38.80	29.58	1.02	83.60	30.58		Aug	4.10	38.80	29.58	3.10	48.80	39.58
	Sep	2.04	39.44	28.23	1.02	84.24	29.23		Sep	4.10	39.44	28.23	3.10	49.44	38.23
	Oct	2.04	39.64	27.55	1.02	84.44	28.55		Oct	4.10	39.64	27.55	3.10	49.64	37.55
	Nov	2.04	39.94	25.35	1.02	84.74	26.35		Nov	4.10	39.94	25.35	3.10	49.94	35.35
2005	Dec	2.04	39.92	21.04	1.02	84.72	22.04	2005	Dec	4.10	39.92	21.04	3.10	49.92	31.04
	Jan	2.18	39.75	17.86	1.09	84.55	18.86		Jan	4.10	39.75	17.86	3.10	49.75	27.86
	Feb	2.18	39.43	16.64	1.09	84.23	17.64		Feb	4.10	39.43	16.64	3.10	49.43	26.64
	Mar	2.18	38.48	18.32	1.09	83.28	19.32		Mar	4.10	38.48	18.32	3.10	48.48	28.32
	Apr	2.18	38.63	20.58	1.09	83.43	21.58		Apr	4.10	38.63	20.58	3.10	48.63	30.58
	May	2.18	38.34	24.43	1.09	83.14	25.43		May	4.10	38.34	24.43	3.10	48.34	34.43
	Jun	2.18	38.30	26.29	1.09	83.10	27.29		Jun	4.10	38.30	26.29	3.10	48.30	36.29
	Jul	2.18	38.66	28.35	1.09	83.46	29.35		Jul	4.10	38.66	28.35	3.10	48.66	38.35
	Aug	2.18	38.97	29.21	1.09	83.77	30.21		Aug	4.10	38.97	29.21	3.10	48.97	39.21
	Sep	2.18	39.28	28.68	1.09	84.08	29.68		Sep	4.10	39.28	28.68	3.10	49.28	38.68
	Oct	2.18	39.82	27.19	1.09	84.62	28.19		Oct	4.10	39.82	27.19	3.10	49.82	37.19
	Nov	2.18	39.98	24.57	1.09	84.78	25.57		Nov	4.10	39.98	24.57	3.10	49.98	34.57
2006	Dec	2.18	39.91	20.94	1.09	84.71	21.94	2006	Dec	4.10	39.91	20.94	3.10	49.91	30.94
	Jan	2.33	39.79	17.89	1.16	84.59	18.89		Jan	4.10	39.79	17.89	3.10	49.79	27.89
	Feb	2.33	38.81	16.68	1.16	83.61	17.68		Feb	4.10	38.81	16.68	3.10	48.81	26.68
	Mar	2.33	38.66	18.33	1.16	83.46	19.33		Mar	4.10	38.66	18.33	3.10	48.66	28.33
	Apr	2.33	38.19	20.76	1.16	82.99	21.76		Apr	4.10	38.19	20.76	3.10	48.19	30.76
	May	2.33	38.14	23.72	1.16	82.94	24.72		May	4.10	38.14	23.72	3.10	48.14	33.72
	Jun	2.33	38.34	26.36	1.16	83.14	27.36		Jun	4.10	38.34	26.36	3.10	48.34	36.36
	Jul	2.33	38.57	28.35	1.16	83.37	29.35		Jul	4.10	38.57	28.35	3.10	48.57	38.35
	Aug	2.33	38.87	28.83	1.16	83.67	29.83		Aug	4.10	38.87	28.83	3.10	48.87	38.83
	Sep	2.33	39.27	29.02	1.16	84.07	30.02		Sep	4.10	39.27	29.02	3.10	49.27	39.02
	Oct	2.33	39.73	27.77	1.16	84.53	28.77		Oct	4.10	39.73	27.77	3.10	49.73	37.77
	Nov	2.33	39.87	24.56	1.16	84.67	25.56		Nov	4.10	39.87	24.56	3.10	49.87	34.56
2007	Dec	2.33	39.57	20.86	1.16	84.37	21.86	2007	Dec	4.10	39.57	20.86	3.10	49.57	30.86
	Jan	2.47	39.63	17.98	1.24	84.43	18.98		Jan	4.10	39.63	17.98	3.10	49.63	27.98
	Feb	2.47	38.99	16.52	1.24	83.79	17.52		Feb	4.10	38.99	16.52	3.10	48.99	26.52
	Mar	2.47	38.78	18.16	1.24	83.58	19.16		Mar	4.10	38.78	18.16	3.10	48.78	28.16
	Apr	2.47	38.30	20.84	1.24	83.10	21.84		Apr	4.10	38.30	20.84	3.10	48.30	30.84
	May	2.47	38.51	23.41	1.24	83.31	24.41		May	4.10	38.51	23.41	3.10	48.51	33.41
	Jun	2.47	38.31	26.05	1.24	83.11	27.05		Jun	4.10	38.31	26.05	3.10	48.31	36.05
	Jul	2.47	38.79	28.43	1.24	83.59	29.43		Jul	4.10	38.79	28.43	3.10	48.79	38.43
	Aug	2.47	38.92	29.12	1.24	83.72	30.12		Aug	4.10	38.92	29.12	3.10	48.92	39.12
	Sep	2.47	39.39	28.74	1.24	84.19	29.74		Sep	4.10	39.39	28.74	3.10	49.39	38.74
	Oct	2.47	39.61	27.07	1.24	84.41	28.07		Oct	4.10	39.61	27.07	3.10	49.61	37.07
	Nov	2.47	40.00	25.34	1.24	84.80	26.34		Nov	4.10	40.00	25.34	3.10	50.00	35.34
2008	Dec	2.47	39.95	21.32	1.24	84.75	22.32	2008	Dec	4.10	39.95	21.32	3.10	49.95	31.32
	Jan	2.62	39.68	17.75	1.31	84.48	18.75		Jan	4.10	39.68	17.75	3.10	49.68	27.75
	Feb	2.62	38.37	16.83	1.31	84.17	17.83		Feb	4.10	38.37	16.83	3.10	49.37	26.83
	Mar	2.62	38.92	18.20	1.31	83.72	19.20		Mar	4.10	38.92	18.20	3.10	48.92	28.20
	Apr	2.62	38.41	20.68	1.31	83.21	21.68		Apr	4.10	38.41	20.68	3.10	48.41	30.68
	May	2.62	38.43	23.98	1.31	83.23	24.98		May	4.10	38.43	23.98	3.10	48.43	33.98
	Jun	2.62	38.22	26.29	1.31	83.02	27.29		Jun	4.10	38.22	26.29	3.10	48.22	36.29
	Jul	2.62	38.61	28.17	1.31	83.41	29.17		Jul	4.10	38.61	28.17	3.10	48.61	38.17
	Aug	2.62	38.78	29.05	1.31	83.58	30.05		Aug	4.10	38.78	29.05	3.10	48.78	39.05
	Sep	2.62	39.23	28.96	1.31	84.03	29.96		Sep	4.10	39.23	28.96	3.10	49.23	38.96
	Oct	2.62	39.73	27.61	1.31	84.53	28.61		Oct	4.10	39.73	27.61	3.10	49.73	37.61
	Nov	2.62	39.92	24.66	1.31	84.72	25.66		Nov	4.10	39.92	24.66	3.10	49.92	34.66
2009	Dec	2.62	39.93	20.98	1.31	84.73	21.98	2009	Dec	4.10	39.93	20.98	3.10	49.93	30.98
	Jan	2.76	39.66	17.50	1.38	84.46	18.50		Jan	4.10	39.66	17.50	3.10	49.66	27.50
	Feb	2.76	39.31	16.56	1.38	84.11	17.56		Feb	4.10	39.31	16.56	3.10	49.31	26.56
	Mar	2.76	39.00	18.09	1.38	83.80	19.09		Mar	4.10	39.00	18.09	3.10	49.00	28.09
	Apr	2.76	38.63	20.82	1.38	83.43	21.82		Apr	4.10	38.63	20.82	3.10	48.63	30.82
	May	2.76	38.34	23.84	1.38	83.14	24.84		May	4.10	38.34	23.84	3.10	48.34	33.84
	Jun	2.76	38.53	26.20	1.38	83.33	27.20		Jun	4.10	38.53	26.20	3.10	48.53	36.20
	Jul	2.76	38.64	28.28	1.38	83.44	29.28		Jul	4.10	38.64	28.28	3.10	48.64	38.28
	Aug	2.76	38.99	28.80	1.38	83.79	29.80		Aug	4.10	38.99	28.80	3.10	48.99	38.80
	Sep	2.76	39.36	28.00	1.38	84.16	29.00		Sep	4.10	39.36	28.00	3.10	49.36	38.00
	Oct	2.76	39.25	26.84	1.38	84.05	27.84		Oct	4.10	39.25	26.84	3.10	49.25	36.84

	Nov	2.76	39.98	24.63	1.38	84.78	25.63		Nov	4.10	39.98	24.63	3.10	49.98	34.63
	Dec	2.76	39.92	21.34	1.38	84.72	22.34		Dec	4.10	39.92	21.34	3.10	49.92	31.34
2010	Jan	2.91	39.66	18.11	1.45	84.46	19.11	2010	Jan	4.10	39.66	18.11	3.10	49.66	28.11
	Feb	2.91	39.17	16.55	1.45	83.97	17.55		Feb	4.10	39.17	16.55	3.10	49.17	17.05
	Mar	2.91	38.72	18.03	1.45	83.52	19.03		Mar	4.10	38.72	18.03	3.10	48.72	28.03
	Apr	2.91	38.41	21.41	1.45	83.21	22.41		Apr	4.10	38.41	21.41	3.10	48.41	31.41
	May	2.91	38.00	23.69	1.45	82.80	24.69		May	4.10	38.00	23.69	3.10	48.00	33.69
	Jun	2.91	37.98	25.86	1.45	82.78	26.86		Jun	4.10	37.98	25.86	3.10	47.98	35.86
	Jul	2.91	38.55	28.08	1.45	83.35	29.08		Jul	4.10	38.55	28.08	3.10	48.55	38.08
	Aug	2.91	38.66	28.99	1.45	83.46	29.99		Aug	4.10	38.66	28.99	3.10	48.66	38.99
	Sep	2.91	39.27	29.57	1.45	84.07	30.57		Sep	4.10	39.27	29.57	3.10	49.27	39.57
	Oct	2.91	39.79	28.16	1.45	84.59	29.16		Oct	4.10	39.79	28.16	3.10	49.79	38.16
	Nov	2.91	40.09	24.99	1.45	84.89	25.99		Nov	4.10	40.09	24.99	3.10	50.09	34.99
	Dec	2.91	40.06	21.30	1.45	84.86	22.30		Dec	4.10	40.06	21.30	3.10	50.06	31.30
2011	Jan	3.05	39.93	18.10	1.53	84.73	19.10	2011	Jan	4.10	39.93	18.10	3.10	49.93	28.10
	Feb	3.05	39.36	16.67	1.53	84.16	17.67		Feb	4.10	39.36	16.67	3.10	49.36	26.67
	Mar	3.05	38.88	18.09	1.53	83.68	19.09		Mar	4.10	38.88	18.09	3.10	48.88	28.09
	Apr	3.05	38.72	21.38	1.53	83.52	22.38		Apr	4.10	38.72	21.38	3.10	48.72	31.38
	May	3.05	38.56	24.22	1.53	83.36	25.22		May	4.10	38.56	24.22	3.10	48.56	34.22
	Jun	3.05	38.37	26.59	1.53	83.17	27.59		Jun	4.10	38.37	26.59	3.10	48.37	36.59
	Jul	3.05	38.80	28.16	1.53	83.60	29.16		Jul	4.10	38.80	28.16	3.10	48.80	38.16
	Aug	3.05	38.92	29.15	1.53	83.72	30.15		Aug	4.10	38.92	29.15	3.10	48.92	39.15
	Sep	3.05	39.28	28.30	1.53	84.08	29.30		Sep	4.10	39.28	28.30	3.10	49.28	38.30
	Oct	3.05	39.64	27.14	1.53	84.44	28.14		Oct	4.10	39.64	27.14	3.10	49.64	37.14
	Nov	3.05	39.80	24.11	1.53	84.60	25.11		Nov	4.10	39.80	24.11	3.10	49.80	34.11
	Dec	3.05	40.14	20.93	1.53	84.94	21.93		Dec	4.10	40.14	20.93	3.10	50.14	30.93
2012	Jan	3.20	39.89	17.63	1.60	84.69	18.63	2012	Jan	4.10	39.89	17.63	3.10	49.89	27.63
	Feb	3.20	39.61	16.83	1.60	84.41	17.83		Feb	4.10	39.61	16.83	3.10	49.61	26.83
	Mar	3.20	38.87	17.98	1.60	83.67	18.98		Mar	4.10	38.87	17.98	3.10	48.87	27.98
	Apr	3.20	38.70	21.16	1.60	83.50	22.16		Apr	4.10	38.70	21.16	3.10	48.70	31.16
	May	3.20	38.46	23.97	1.60	83.26	24.97		May	4.10	38.46	23.97	3.10	48.46	33.97
	Jun	3.20	38.52	26.26	1.60	83.32	27.26		Jun	4.10	38.52	26.26	3.10	48.52	36.26
	Jul	3.20	38.71	28.75	1.60	83.51	29.75		Jul	4.10	38.71	28.75	3.10	48.71	38.75
	Aug	3.20	38.91	29.54	1.60	83.71	30.54		Aug	4.10	38.91	29.54	3.10	48.91	39.54
	Sep	3.20	39.15	28.00	1.60	83.95	29.00		Sep	4.10	39.15	28.00	3.10	49.15	38.00
	Oct	3.20	39.72	27.25	1.60	84.52	28.25		Oct	4.10	39.72	27.25	3.10	49.72	37.25
	Nov	3.20	40.05	24.64	1.60	84.85	25.64		Nov	4.10	40.05	24.64	3.10	50.05	34.64
	Dec	3.20	40.07	21.33	1.60	84.87	22.23		Dec	4.10	40.07	21.33	3.10	50.07	31.23
2013	Jan	3.35	39.29	17.57	1.67	84.09	18.57	2013	Jan	4.10	39.29	17.57	3.10	49.29	27.57
	Feb	3.35	39.52	16.83	1.67	84.32	17.83		Feb	4.10	39.52	16.83	3.10	49.52	26.83
	Mar	3.35	39.06	17.83	1.67	83.86	18.83		Mar	4.10	39.06	17.83	3.10	49.06	27.83
	Apr	3.35	38.46	21.15	1.67	83.26	22.15		Apr	4.10	38.46	21.15	3.10	48.46	31.15
	May	3.35	38.32	23.93	1.67	83.12	24.93		May	4.10	38.32	23.93	3.10	48.32	33.93
	Jun	3.35	38.41	26.62	1.67	83.21	27.62		Jun	4.10	38.41	26.62	3.10	48.41	36.62
	Jul	3.35	38.61	28.32	1.67	83.41	29.32		Jul	4.10	38.61	28.32	3.10	48.61	38.32
	Aug	3.35	38.92	28.73	1.67	83.72	29.73		Aug	4.10	38.92	28.73	3.10	48.92	38.73
	Sep	3.35	39.05	28.82	1.67	83.85	29.82		Sep	4.10	39.05	28.82	3.10	49.05	38.82
	Oct	3.35	39.60	27.39	1.67	84.40	28.39		Oct	4.10	39.60	27.39	3.10	49.60	37.39
	Nov	3.35	39.74	24.22	1.67	84.54	25.22		Nov	4.10	39.74	24.22	3.10	49.74	34.22
	Dec	3.35	40.10	21.04	1.67	84.90	22.04		Dec	4.10	40.10	21.04	3.10	50.10	31.04
2014	Jan	3.49	39.79	17.69	1.75	84.59	18.69	2014	Jan	4.10	39.79	17.69	3.10	49.79	27.69
	Feb	3.49	39.51	16.85	1.75	84.31	17.85		Feb	4.10	39.51	16.85	3.10	49.51	26.85
	Mar	3.49	38.99	18.09	1.75	83.79	19.09		Mar	4.10	38.99	18.09	3.10	48.99	28.09
	Apr	3.49	38.82	20.65	1.75	83.62	21.65		Apr	4.10	38.82	20.65	3.10	48.82	30.65
	May	3.49	38.62	23.64	1.75	83.42	24.64		May	4.10	38.62	23.64	3.10	48.62	33.64
	Jun	3.49	38.72	26.21	1.75	83.52	27.21		Jun	4.10	38.72	26.21	3.10	48.72	36.21
	Jul	3.49	38.84	28.69	1.75	83.64	29.69		Jul	4.10	38.84	28.69	3.10	48.84	38.69
	Aug	3.49	38.84	28.73	1.75	83.64	29.73		Aug	4.10	38.84	28.73	3.10	48.84	38.73
	Sep	3.49	39.31	28.54	1.75	84.11	29.54		Sep	4.10	39.31	28.54	3.10	49.31	38.54
	Oct	3.49	39.70	27.35	1.75	84.50	28.35		Oct	4.10	39.70	27.35	3.10	49.70	37.35
	Nov	3.49	40.10	24.77	1.75	84.90	25.77		Nov	4.10	40.10	24.77	3.10	50.10	34.77
	Dec	3.49	40.29	21.06	1.75	85.09	22.06		Dec	4.10	40.29	21.06	3.10	50.29	31.06
2015	Jan	3.64	40.16	18.09	1.82	84.96	19.09	2015	Jan	4.10	40.16	18.09	3.10	50.16	28.09
	Feb	3.64	39.76	16.77	1.82	84.56	17.77		Feb	4.10	39.76	16.77	3.10	49.76	26.77

	Mar	3.64	38.99	18.09	1.82	83.79	19.09		Mar	4.10	38.99	18.09	3.10	48.99	28.09
	Apr	3.64	38.88	20.93	1.82	83.68	21.93		Apr	4.10	38.88	20.93	3.10	48.88	30.93
	May	3.64	38.72	24.36	1.82	83.52	25.36		May	4.10	38.72	24.36	3.10	48.72	34.36
	Jun	3.64	38.78	26.36	1.82	83.58	27.36		Jun	4.10	38.78	26.36	3.10	48.78	36.36
	Jul	3.64	39.00	28.36	1.82	83.80	29.36		Jul	4.10	39.00	28.36	3.10	49.00	38.36
	Aug	3.64	39.08	29.39	1.82	83.88	30.39		Aug	4.10	39.08	29.39	3.10	49.08	39.39
	Sep	3.64	39.52	29.18	1.82	84.32	30.18		Sep	4.10	39.52	29.18	3.10	49.52	39.18
	Oct	3.64	39.88	27.35	1.82	84.68	28.35		Oct	4.10	39.88	27.35	3.10	49.88	37.35
	Nov	3.64	40.38	24.71	1.82	85.18	25.71		Nov	4.10	40.38	24.71	3.10	50.38	34.71
	Dec	3.64	40.33	21.23	1.82	85.13	22.23		Dec	4.10	40.33	21.23	3.10	50.33	31.23

Kuwait (Azour) MED		Inflow			Outflow			Kuwait (Azour) MSF		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	1.15	39.28	16.58	0.76	54.28	26.58	2004	Jan	24.30	39.28	16.58	18.20	49.28	26.58
	Feb	1.15	38.76	16.37	0.76	53.76	26.37		Feb	24.30	38.76	16.37	18.20	48.76	26.37
	Mar	1.15	38.62	18.33	0.76	53.62	28.33		Mar	24.30	38.62	18.33	18.20	48.62	28.33
	Apr	1.15	38.48	22.30	0.76	53.48	32.30		Apr	24.30	38.48	22.30	18.20	48.48	32.30
	May	1.15	38.37	25.93	0.76	53.37	35.93		May	24.30	38.37	25.93	18.20	48.37	35.93
	Jun	1.15	38.66	28.56	0.76	53.66	38.56		Jun	24.30	38.66	28.56	18.20	48.66	38.56
	Jul	1.15	38.97	29.28	0.76	53.97	39.28		Jul	24.30	38.97	29.28	18.20	48.97	39.28
	Aug	1.15	39.27	30.04	0.76	54.27	40.04		Aug	24.30	39.27	30.04	18.20	49.27	40.04
	Sep	1.15	39.70	28.72	0.76	54.70	38.72		Sep	24.30	39.70	28.72	18.20	49.70	38.72
	Oct	1.15	39.85	27.85	0.76	54.85	37.85		Oct	24.30	39.85	27.85	18.20	49.85	37.85
	Nov	1.15	39.63	24.62	0.76	54.63	34.62		Nov	24.30	39.63	24.62	18.20	49.63	34.62
	Dec	1.15	39.35	19.35	0.76	54.35	29.35		Dec	24.30	39.35	19.35	18.20	49.35	29.35
2005	Jan	1.23	39.18	16.25	0.82	54.18	26.25	2005	Jan	24.30	39.18	16.25	18.20	49.18	26.25
	Feb	1.23	38.84	16.05	0.82	53.84	26.05		Feb	24.30	38.84	16.05	18.20	48.84	26.05
	Mar	1.23	38.57	18.71	0.82	53.57	28.71		Mar	24.30	38.57	18.71	18.20	48.57	28.71
	Apr	1.23	38.53	22.05	0.82	53.53	32.05		Apr	24.30	38.53	22.05	18.20	48.53	32.05
	May	1.23	38.52	26.29	0.82	53.52	36.29		May	24.30	38.52	26.29	18.20	48.52	36.29
	Jun	1.23	38.69	28.26	0.82	53.69	38.56		Jun	24.30	38.69	28.26	18.20	48.69	38.56
	Jul	1.23	39.01	29.07	0.82	54.01	39.07		Jul	24.30	39.01	29.07	18.20	49.01	39.07
	Aug	1.23	39.30	29.98	0.82	54.30	39.98		Aug	24.30	39.30	29.98	18.20	49.30	39.98
	Sep	1.23	39.72	29.07	0.82	54.72	39.07		Sep	24.30	39.72	29.07	18.20	49.72	39.07
	Oct	1.23	39.95	27.05	0.82	54.95	37.05		Oct	24.30	39.95	27.05	18.20	49.95	37.05
	Nov	1.23	39.57	23.58	0.82	54.57	33.58		Nov	24.30	39.57	23.58	18.20	49.57	33.58
	Dec	1.23	38.89	19.69	0.82	53.89	29.69		Dec	24.30	38.89	19.69	18.20	48.89	29.69
2006	Jan	1.31	38.94	16.82	0.87	53.94	26.82	2006	Jan	24.30	38.94	16.82	18.20	48.94	26.82
	Feb	1.31	38.72	16.00	0.87	53.72	26.00		Feb	24.30	38.72	16.00	18.20	48.72	26.00
	Mar	1.31	38.46	18.49	0.87	53.46	28.49		Mar	24.30	38.46	18.49	18.20	48.46	28.49
	Apr	1.31	38.33	22.19	0.87	53.33	32.19		Apr	24.30	38.33	22.19	18.20	48.33	32.19
	May	1.31	38.34	25.72	0.87	53.34	35.72		May	24.30	38.34	25.72	18.20	48.34	35.72
	Jun	1.31	38.63	27.97	0.87	53.63	37.97		Jun	24.30	38.63	27.97	18.20	48.63	37.97
	Jul	1.31	38.90	29.18	0.87	53.90	39.18		Jul	24.30	38.90	29.18	18.20	48.90	39.18
	Aug	1.31	39.21	29.40	0.87	54.21	39.40		Aug	24.30	39.21	29.40	18.20	49.21	39.40
	Sep	1.31	39.61	29.58	0.87	54.61	39.58		Sep	24.30	39.61	29.58	18.20	49.61	39.58
	Oct	1.31	39.83	27.49	0.87	54.83	37.49		Oct	24.30	39.83	27.49	18.20	49.83	37.49
	Nov	1.31	39.50	23.53	0.87	54.50	33.53		Nov	24.30	39.50	23.53	18.20	49.50	33.53
	Dec	1.31	39.10	19.67	0.87	54.10	29.67		Dec	24.30	39.10	19.67	18.20	49.10	29.67
2007	Jan	1.39	39.03	16.71	0.93	54.03	26.71	2007	Jan	24.30	39.03	16.71	18.20	49.03	26.71
	Feb	1.39	38.92	16.19	0.93	53.92	26.19		Feb	24.30	38.92	16.19	18.20	48.92	26.19
	Mar	1.39	38.59	18.73	0.93	53.59	28.73		Mar	24.30	38.59	18.73	18.20	48.59	28.73
	Apr	1.39	38.41	22.46	0.93	53.41	32.46		Apr	24.30	38.41	22.46	18.20	48.41	32.46
	May	1.39	38.49	25.34	0.93	53.49	35.34		May	24.30	38.49	25.34	18.20	48.49	35.34
	Jun	1.39	38.71	28.05	0.93	53.71	38.05		Jun	24.30	38.71	28.05	18.20	48.71	38.05
	Jul	1.39	39.07	29.26	0.93	54.07	39.26		Jul	24.30	39.07	29.26	18.20	49.07	39.26
	Aug	1.39	39.31	29.73	0.93	54.31	39.73		Aug	24.30	39.31	29.73	18.20	49.31	39.73
	Sep	1.39	39.66	29.32	0.93	54.66	39.32		Sep	24.30	39.66	29.32	18.20	49.66	39.32
	Oct	1.39	39.82	27.28	0.93	54.82	37.28		Oct	24.30	39.82	27.28	18.20	49.82	37.28
	Nov	1.39	39.70	24.63	0.93	54.70	34.63		Nov	24.30	39.70	24.63	18.20	49.70	34.63
	Dec	1.39	39.34	19.54	0.93	54.34	29.54		Dec	24.30	39.34	19.54	18.20	49.34	29.54

2008	Jan	1.47	39.02	16.28	0.98	54.02	26.28	2008	Jan	24.30	39.02	16.28	18.20	49.02	26.28
	Feb	1.47	38.91	16.29	0.98	53.91	26.29		Feb	24.30	38.91	16.29	18.20	48.91	26.29
	Mar	1.47	38.57	18.24	0.98	53.57	28.24		Mar	24.30	38.57	18.24	18.20	48.57	28.24
	Apr	1.47	38.42	22.05	0.98	53.42	32.05		Apr	24.30	38.42	22.05	18.20	48.42	32.05
	May	1.47	38.33	25.85	0.98	53.33	35.85		May	24.30	38.33	25.85	18.20	48.33	35.85
	Jun	1.47	38.55	28.03	0.98	53.55	38.03		Jun	24.30	38.55	28.03	18.20	48.55	38.03
	Jul	1.47	38.85	29.36	0.98	53.85	39.36		Jul	24.30	38.85	29.36	18.20	48.85	39.36
	Aug	1.47	39.21	29.30	0.98	54.21	39.30		Aug	24.30	39.21	29.30	18.20	49.21	39.30
	Sep	1.47	39.59	29.33	0.98	54.59	39.33		Sep	24.30	39.59	29.33	18.20	49.59	39.33
	Oct	1.47	39.71	27.50	0.98	54.71	37.50		Oct	24.30	39.71	27.50	18.20	49.71	37.50
	Nov	1.47	39.52	23.72	0.98	54.52	33.72		Nov	24.30	39.52	23.72	18.20	49.52	33.72
	Dec	1.47	39.54	19.50	0.98	54.54	29.50		Dec	24.30	39.54	19.50	18.20	49.54	29.50
2009	Jan	1.55	39.23	16.53	1.04	54.23	26.53	2009	Jan	24.30	39.23	16.53	18.20	49.23	26.53
	Feb	1.55	38.87	16.07	1.04	53.87	26.07		Feb	24.30	38.87	16.07	18.20	48.87	26.07
	Mar	1.55	38.57	18.21	1.04	53.57	28.21		Mar	24.30	38.57	18.21	18.20	48.57	28.21
	Apr	1.55	38.58	22.18	1.04	53.58	32.18		Apr	24.30	38.58	22.18	18.20	48.58	32.18
	May	1.55	38.54	25.85	1.04	53.54	35.85		May	24.30	38.54	25.85	18.20	48.54	35.85
	Jun	1.55	38.76	27.99	1.04	53.76	37.99		Jun	24.30	38.76	27.99	18.20	48.76	37.99
	Jul	1.55	38.97	29.62	1.04	53.97	39.62		Jul	24.30	38.97	29.62	18.20	48.97	39.62
	Aug	1.55	39.32	29.01	1.04	54.32	39.01		Aug	24.30	39.32	29.01	18.20	49.32	39.01
	Sep	1.55	39.66	27.96	1.04	54.66	37.96		Sep	24.30	39.66	27.96	18.20	49.66	37.96
	Oct	1.55	39.84	27.09	1.04	54.84	37.09		Oct	24.30	39.84	27.09	18.20	49.84	37.09
	Nov	1.55	39.49	23.52	1.04	54.49	33.52		Nov	24.30	39.49	23.52	18.20	49.49	33.52
	Dec	1.55	39.17	19.88	1.04	54.17	29.88		Dec	24.30	39.17	19.88	18.20	49.17	29.88
2010	Jan	1.64	38.97	17.00	1.09	53.97	27.00	2010	Jan	24.30	38.97	17.00	18.20	48.97	27.00
	Feb	1.64	38.70	16.05	1.09	53.70	26.05		Feb	24.30	38.70	16.05	18.20	48.70	26.05
	Mar	1.64	38.47	18.48	1.09	53.47	28.48		Mar	24.30	38.47	18.48	18.20	48.47	28.48
	Apr	1.64	38.46	22.21	1.09	53.46	32.21		Apr	24.30	38.46	22.21	18.20	48.46	32.21
	May	1.64	38.45	25.87	1.09	53.45	35.87		May	24.30	38.45	25.87	18.20	48.45	35.87
	Jun	1.64	38.61	28.03	1.09	53.61	38.03		Jun	24.30	38.61	28.03	18.20	48.61	38.03
	Jul	1.64	38.86	29.11	1.09	53.86	39.11		Jul	24.30	38.86	29.11	18.20	48.86	39.11
	Aug	1.64	39.09	29.56	1.09	54.09	39.56		Aug	24.30	39.09	29.56	18.20	49.09	39.56
	Sep	1.64	39.59	29.62	1.09	54.59	39.62		Sep	24.30	39.59	29.62	18.20	49.59	39.62
	Oct	1.64	39.93	27.99	1.09	54.93	37.99		Oct	24.30	39.93	27.99	18.20	49.93	37.99
	Nov	1.64	39.90	23.84	1.09	54.90	33.84		Nov	24.30	39.90	23.84	18.20	49.90	33.84
	Dec	1.64	39.46	19.87	1.09	54.46	29.87		Dec	24.30	39.46	19.87	18.20	49.46	29.87
2011	Jan	1.72	39.36	16.89	1.15	54.36	26.89	2011	Jan	24.30	39.36	16.89	18.20	49.36	26.89
	Feb	1.72	39.09	16.16	1.15	54.09	26.16		Feb	24.30	39.09	16.16	18.20	49.09	26.16
	Mar	1.72	38.77	18.74	1.15	53.77	28.74		Mar	24.30	38.77	18.74	18.20	48.77	28.74
	Apr	1.72	38.71	22.22	1.15	53.71	32.22		Apr	24.30	38.71	22.22	18.20	48.71	32.22
	May	1.72	38.66	25.48	1.15	53.66	35.48		May	24.30	38.66	25.48	18.20	48.66	35.48
	Jun	1.72	38.77	27.98	1.15	53.77	37.98		Jun	24.30	38.77	27.98	18.20	48.77	37.98
	Jul	1.72	39.04	28.92	1.15	54.04	38.92		Jul	24.30	39.04	28.92	18.20	49.04	38.92
	Aug	1.72	39.28	29.66	1.15	54.28	39.66		Aug	24.30	39.28	29.66	18.20	49.28	39.66
	Sep	1.72	39.65	28.67	1.15	54.65	38.67		Sep	24.30	39.65	28.67	18.20	49.65	38.67
	Oct	1.72	39.97	27.41	1.15	54.97	37.41		Oct	24.30	39.97	27.41	18.20	49.97	37.41
	Nov	1.72	40.09	23.39	1.15	55.09	33.39		Nov	24.30	40.09	23.39	18.20	50.09	33.39
	Dec	1.72	39.74	19.24	1.15	54.74	29.24		Dec	24.30	39.74	19.24	18.20	49.74	29.24
2012	Jan	1.80	39.46	16.42	1.20	54.46	26.42	2012	Jan	24.30	39.46	16.42	18.20	49.46	26.42
	Feb	1.80	39.06	16.20	1.20	54.06	26.20		Feb	24.30	39.06	16.20	18.20	49.06	26.20
	Mar	1.80	38.73	18.39	1.20	53.73	28.39		Mar	24.30	38.73	18.39	18.20	48.73	28.39
	Apr	1.80	38.60	22.16	1.20	53.60	32.16		Apr	24.30	38.60	22.16	18.20	48.60	32.16
	May	1.80	38.61	26.03	1.20	53.61	36.03		May	24.30	38.61	26.03	18.20	48.61	36.03
	Jun	1.80	38.72	28.11	1.20	53.72	38.11		Jun	24.30	38.72	28.11	18.20	48.72	38.11
	Jul	1.80	38.98	29.59	1.20	53.98	39.59		Jul	24.30	38.98	29.59	18.20	48.98	39.59
	Aug	1.80	39.27	30.06	1.20	54.27	40.06		Aug	24.30	39.27	30.06	18.20	49.27	40.06
	Sep	1.80	39.70	28.45	1.20	54.70	38.45		Sep	24.30	39.70	28.45	18.20	49.70	38.45
	Oct	1.80	39.82	27.25	1.20	54.82	37.25		Oct	24.30	39.82	27.25	18.20	49.82	37.25
	Nov	1.80	39.75	23.54	1.20	54.75	33.54		Nov	24.30	39.75	23.54	18.20	49.75	33.54
	Dec	1.80	39.60	19.77	1.20	54.60	29.77		Dec	24.30	39.60	19.77	18.20	49.60	29.77
2013	Jan	1.88	39.19	16.73	1.25	54.19	26.73	2013	Jan	24.30	39.19	16.73	18.20	49.19	26.73
	Feb	1.88	38.90	15.99	1.25	53.90	25.99		Feb	24.30	38.90	15.99	18.20	48.90	25.99
	Mar	1.88	38.65	18.25	1.25	53.65	28.25		Mar	24.30	38.65	18.25	18.20	48.65	28.25
	Apr	1.88	38.47	22.23	1.25	53.47	32.23		Apr	24.30	38.47	22.23	18.20	48.47	32.23

	May	1.88	38.49	26.02	1.25	53.49	36.02		May	24.30	38.49	26.02	18.20	48.49	36.02
	Jun	1.88	38.65	28.01	1.25	53.65	38.01		Jun	24.30	38.65	28.01	18.20	48.65	38.01
	Jul	1.88	38.87	29.25	1.25	53.87	39.25		Jul	24.30	38.87	29.25	18.20	48.87	39.25
	Aug	1.88	39.15	28.96	1.25	54.15	38.96		Aug	24.30	39.15	28.96	18.20	49.15	38.96
	Sep	1.88	39.57	29.06	1.25	54.57	39.06		Sep	24.30	39.57	29.06	18.20	49.57	39.06
	Oct	1.88	39.94	27.12	1.25	54.94	37.12		Oct	24.30	39.94	27.12	18.20	49.94	37.12
	Nov	1.88	40.03	23.55	1.25	55.03	33.55		Nov	24.30	40.03	23.55	18.20	50.03	33.55
	Dec	1.88	39.46	19.89	1.25	54.46	29.89		Dec	24.30	39.46	19.89	18.20	49.46	29.89
2014	Jan	1.96	39.41	16.50	1.31	54.41	26.50	2014	Jan	24.30	39.41	16.50	18.20	49.41	26.50
	Feb	1.96	39.03	16.15	1.31	54.03	26.15		Feb	24.30	39.03	16.15	18.20	49.03	26.15
	Mar	1.96	38.74	18.38	1.31	53.74	28.38		Mar	24.30	38.74	18.38	18.20	48.74	28.38
	Apr	1.96	38.81	22.20	1.31	53.81	32.20		Apr	24.30	38.81	22.20	18.20	48.81	32.20
	May	1.96	38.73	25.65	1.31	53.73	35.65		May	24.30	38.73	25.65	18.20	48.73	35.65
	Jun	1.96	38.94	28.27	1.31	53.94	38.27		Jun	24.30	38.94	28.27	18.20	48.94	38.27
	Jul	1.96	39.13	29.48	1.31	54.13	39.48		Jul	24.30	39.13	29.48	18.20	49.13	39.48
	Aug	1.96	39.34	29.14	1.31	54.34	39.14		Aug	24.30	39.34	29.14	18.20	49.34	39.14
	Sep	1.96	39.72	28.90	1.31	54.72	38.90		Sep	24.30	39.72	28.90	18.20	49.72	38.90
	Oct	1.96	40.09	27.42	1.31	55.09	37.42		Oct	24.30	40.09	27.42	18.20	50.09	37.42
	Nov	1.96	40.19	23.25	1.31	55.19	33.25		Nov	24.30	40.19	23.25	18.20	50.19	33.25
	Dec	1.96	39.81	19.48	1.31	54.81	29.48		Dec	24.30	39.81	19.48	18.20	49.81	29.48
2015	Jan	2.05	39.69	16.77	1.36	54.69	26.77	2015	Jan	24.30	39.69	16.77	18.20	49.69	26.77
	Feb	2.05	39.44	16.18	1.36	54.44	26.18		Feb	24.30	39.44	16.18	18.20	49.44	26.18
	Mar	2.05	38.74	18.38	1.36	53.74	28.38		Mar	24.30	38.74	18.38	18.20	48.74	28.38
	Apr	2.05	38.85	22.28	1.36	53.85	32.28		Apr	24.30	38.85	22.28	18.20	48.85	32.28
	May	2.05	38.77	25.58	1.36	53.77	35.58		May	24.30	38.77	25.58	18.20	48.77	35.58
	Jun	2.05	38.87	27.83	1.36	53.87	37.83		Jun	24.30	38.87	27.83	18.20	48.87	37.83
	Jul	2.05	39.23	28.78	1.36	54.23	38.78		Jul	24.30	39.23	28.78	18.20	49.23	38.78
	Aug	2.05	39.49	30.01	1.36	54.49	40.01		Aug	24.30	39.49	30.01	18.20	49.49	40.01
	Sep	2.05	39.88	29.26	1.36	54.88	39.26		Sep	24.30	39.88	29.26	18.20	49.88	39.26
	Oct	2.05	40.16	27.49	1.36	55.16	37.49		Oct	24.30	40.16	27.49	18.20	50.16	37.49
	Nov	2.05	40.25	23.78	1.36	55.25	33.78		Nov	24.30	40.25	23.78	18.20	50.25	33.78
	Dec	2.05	39.91	19.85	1.36	54.91	29.85		Dec	24.30	39.91	19.85	18.20	49.91	29.85

Kuwait (Alsubia) MED		Inflow			Outflow			Kuwait (Alsubia) MSF		Inflow			Outflow		
		F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)			F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)
2004	Jan	10.05	40.18	17.84	6.68	55.18	27.84	2004	Jan	13.43	40.18	17.84	10.05	50.18	27.84
	Feb	10.05	39.08	16.90	6.68	54.08	26.90		Feb	13.43	39.08	16.90	10.05	49.08	26.90
	Mar	10.05	39.06	18.27	6.68	54.06	28.27		Mar	13.43	39.06	18.27	10.05	49.06	28.27
	Apr	10.05	38.68	21.22	6.68	53.68	31.22		Apr	13.43	38.68	21.22	10.05	48.68	31.22
	May	10.05	38.26	23.84	6.68	53.26	33.84		May	13.43	38.26	23.84	10.05	48.26	33.84
	Jun	10.05	38.04	26.08	6.68	53.04	36.08		Jun	13.43	38.04	26.08	10.05	48.04	36.08
	Jul	10.05	38.68	28.27	6.68	53.68	38.27		Jul	13.43	38.68	28.27	10.05	48.68	38.27
	Aug	10.05	38.80	29.58	6.68	53.80	39.58		Aug	13.43	38.80	29.58	10.05	48.80	39.58
	Sep	10.05	39.44	28.23	6.68	54.44	38.23		Sep	13.43	39.44	28.23	10.05	49.44	38.23
	Oct	10.05	39.64	27.55	6.68	54.64	37.55		Oct	13.43	39.64	27.55	10.05	49.64	37.55
	Nov	10.05	39.94	25.35	6.68	54.94	35.35		Nov	13.43	39.94	25.35	10.05	49.94	35.35
	Dec	10.05	39.92	21.04	6.68	54.92	31.04		Dec	13.43	39.92	21.04	10.05	49.92	31.04
2005	Jan	10.77	39.75	17.86	7.16	54.75	27.86	2005	Jan	14.39	39.75	17.86	10.77	49.75	27.86
	Feb	10.77	39.43	16.64	7.16	54.43	26.64		Feb	14.39	39.43	16.64	10.77	49.43	26.64
	Mar	10.77	38.48	18.32	7.16	53.48	28.32		Mar	14.39	38.48	18.32	10.77	48.48	28.32
	Apr	10.77	38.63	20.58	7.16	53.63	30.58		Apr	14.39	38.63	20.58	10.77	48.63	30.58
	May	10.77	38.34	24.43	7.16	53.34	34.43		May	14.39	38.34	24.43	10.77	48.34	34.43
	Jun	10.77	38.30	26.29	7.16	53.30	36.29		Jun	14.39	38.30	26.29	10.77	48.30	36.29
	Jul	10.77	38.66	28.35	7.16	53.66	38.35		Jul	14.39	38.66	28.35	10.77	48.66	38.35
	Aug	10.77	38.97	29.21	7.16	53.97	39.21		Aug	14.39	38.97	29.21	10.77	48.97	39.21
	Sep	10.77	39.28	28.68	7.16	54.28	38.68		Sep	14.39	39.28	28.68	10.77	49.28	38.68
	Oct	10.77	39.82	27.19	7.16	54.82	37.19		Oct	14.39	39.82	27.19	10.77	49.82	37.19
	Nov	10.77	39.98	24.57	7.16	54.98	34.57		Nov	14.39	39.98	24.57	10.77	49.98	34.57
	Dec	10.77	39.91	20.94	7.16	54.91	30.94		Dec	14.39	39.91	20.94	10.77	49.91	30.94
2006	Jan	11.49	39.79	17.89	7.64	54.79	27.89	2006	Jan	15.35	39.79	17.89	11.49	49.79	27.89
	Feb	11.49	38.81	16.68	7.64	53.81	26.68		Feb	15.35	38.81	16.68	11.49	48.81	26.68

	Mar	11.49	38.66	18.33	7.64	53.66	28.33		Mar	15.35	38.66	18.33	11.49	48.66	28.33
	Apr	11.49	38.19	20.76	7.64	53.19	30.76		Apr	15.35	38.19	20.76	11.49	48.19	30.76
	May	11.49	38.14	23.72	7.64	53.14	33.72		May	15.35	38.14	23.72	11.49	48.14	33.72
	Jun	11.49	38.34	26.36	7.64	53.34	36.36		Jun	15.35	38.34	26.36	11.49	48.34	36.36
	Jul	11.49	38.57	28.35	7.64	53.57	38.35		Jul	15.35	38.57	28.35	11.49	48.57	38.35
	Aug	11.49	38.87	28.83	7.64	53.87	38.83		Aug	15.35	38.87	28.83	11.49	48.87	38.83
	Sep	11.49	39.27	29.02	7.64	54.27	39.02		Sep	15.35	39.27	29.02	11.49	49.27	39.02
	Oct	11.49	39.73	27.77	7.64	54.73	37.77		Oct	15.35	39.73	27.77	11.49	49.73	37.77
	Nov	11.49	39.87	24.56	7.64	54.87	34.56		Nov	15.35	39.87	24.56	11.49	49.87	34.56
	Dec	11.49	39.57	20.86	7.64	54.57	30.86		Dec	15.35	39.57	20.86	11.49	49.57	30.86
2007	Jan	12.21	39.63	17.98	8.11	54.63	27.98	2007	Jan	16.30	39.63	17.98	12.21	49.63	27.98
	Feb	12.21	38.99	16.52	8.11	53.99	26.52		Feb	16.30	38.99	16.52	12.21	48.99	26.52
	Mar	12.21	38.78	18.16	8.11	53.78	28.16		Mar	16.30	38.78	18.16	12.21	48.78	28.16
	Apr	12.21	38.30	20.84	8.11	53.30	30.84		Apr	16.30	38.30	20.84	12.21	48.30	30.84
	May	12.21	38.51	23.41	8.11	53.51	33.41		May	16.30	38.51	23.41	12.21	48.51	33.41
	Jun	12.21	38.31	26.05	8.11	53.31	36.05		Jun	16.30	38.31	26.05	12.21	48.31	36.05
	Jul	12.21	38.79	28.43	8.11	53.79	38.43		Jul	16.30	38.79	28.43	12.21	48.79	38.43
	Aug	12.21	38.92	29.12	8.11	53.92	39.12		Aug	16.30	38.92	29.12	12.21	48.92	39.12
	Sep	12.21	39.39	28.74	8.11	54.39	38.74		Sep	16.30	39.39	28.74	12.21	49.39	38.74
	Oct	12.21	39.61	27.07	8.11	54.61	37.07		Oct	16.30	39.61	27.07	12.21	49.61	37.07
	Nov	12.21	40.00	25.34	8.11	55.00	35.34		Nov	16.30	40.00	25.34	12.21	50.00	35.34
	Dec	12.21	39.95	21.32	8.11	54.95	31.32		Dec	16.30	39.95	21.32	12.21	49.95	31.32
2008	Jan	12.93	39.68	17.75	8.59	54.68	27.75	2008	Jan	17.26	39.68	17.75	12.93	49.68	27.75
	Feb	12.93	38.37	16.83	8.59	54.37	26.83		Feb	17.26	38.37	16.83	12.93	49.37	26.83
	Mar	12.93	38.92	18.20	8.59	53.92	28.20		Mar	17.26	38.92	18.20	12.93	48.92	28.20
	Apr	12.93	38.41	20.68	8.59	53.41	30.68		Apr	17.26	38.41	20.68	12.93	48.41	30.68
	May	12.93	38.43	23.98	8.59	53.43	33.98		May	17.26	38.43	23.98	12.93	48.43	33.98
	Jun	12.93	38.22	26.29	8.59	53.22	36.29		Jun	17.26	38.22	26.29	12.93	48.22	36.29
	Jul	12.93	38.61	28.17	8.59	53.61	38.17		Jul	17.26	38.61	28.17	12.93	48.61	38.17
	Aug	12.93	38.78	29.05	8.59	53.78	39.05		Aug	17.26	38.78	29.05	12.93	48.78	39.05
	Sep	12.93	39.23	28.96	8.59	54.23	38.96		Sep	17.26	39.23	28.96	12.93	49.23	38.96
	Oct	12.93	39.73	27.61	8.59	54.73	37.61		Oct	17.26	39.73	27.61	12.93	49.73	37.61
	Nov	12.93	39.92	24.66	8.59	54.92	34.66		Nov	17.26	39.92	24.66	12.93	49.92	34.66
	Dec	12.93	39.93	20.98	8.59	54.93	30.98		Dec	17.26	39.93	20.98	12.93	49.93	30.98
2009	Jan	13.65	39.66	17.50	9.07	54.66	27.50	2009	Jan	18.22	39.66	17.50	13.65	49.66	27.50
	Feb	13.65	39.31	16.56	9.07	54.31	26.56		Feb	18.22	39.31	16.56	13.65	49.31	26.56
	Mar	13.65	39.00	18.09	9.07	54.00	28.09		Mar	18.22	39.00	18.09	13.65	49.00	28.09
	Apr	13.65	38.63	20.82	9.07	53.63	30.82		Apr	18.22	38.63	20.82	13.65	48.63	30.82
	May	13.65	38.34	23.84	9.07	53.34	33.84		May	18.22	38.34	23.84	13.65	48.34	33.84
	Jun	13.65	38.53	26.20	9.07	53.53	36.20		Jun	18.22	38.53	26.20	13.65	48.53	36.20
	Jul	13.65	38.64	28.28	9.07	53.64	38.28		Jul	18.22	38.64	28.28	13.65	48.64	38.28
	Aug	13.65	38.99	28.80	9.07	53.99	38.80		Aug	18.22	38.99	28.80	13.65	48.99	38.80
	Sep	13.65	39.36	28.00	9.07	54.36	38.00		Sep	18.22	39.36	28.00	13.65	49.36	38.00
	Oct	13.65	39.25	26.84	9.07	54.25	36.84		Oct	18.22	39.25	26.84	13.65	49.25	36.84
	Nov	13.65	39.98	24.63	9.07	54.98	34.63		Nov	18.22	39.98	24.63	13.65	49.98	34.63
	Dec	13.65	39.92	21.34	9.07	54.92	31.34		Dec	18.22	39.92	21.34	13.65	49.92	31.34
2010	Jan	14.36	39.66	18.11	9.55	54.66	28.11	2010	Jan	19.18	39.66	18.11	14.36	49.66	28.11
	Feb	14.36	39.17	16.55	9.55	54.17	17.05		Feb	19.18	39.17	16.55	14.36	49.17	17.05
	Mar	14.36	38.72	18.03	9.55	53.72	28.03		Mar	19.18	38.72	18.03	14.36	48.72	28.03
	Apr	14.36	38.41	21.41	9.55	53.41	31.41		Apr	19.18	38.41	21.41	14.36	48.41	31.41
	May	14.36	38.00	23.69	9.55	53.00	33.69		May	19.18	38.00	23.69	14.36	48.00	33.69
	Jun	14.36	37.98	25.86	9.55	52.98	35.86		Jun	19.18	37.98	25.86	14.36	47.98	35.86
	Jul	14.36	38.55	28.08	9.55	53.55	38.08		Jul	19.18	38.55	28.08	14.36	48.55	38.08
	Aug	14.36	38.66	28.99	9.55	53.66	38.99		Aug	19.18	38.66	28.99	14.36	48.66	38.99
	Sep	14.36	39.27	29.57	9.55	54.27	39.57		Sep	19.18	39.27	29.57	14.36	49.27	39.57
	Oct	14.36	39.79	28.16	9.55	54.79	38.16		Oct	19.18	39.79	28.16	14.36	49.79	38.16
	Nov	14.36	40.09	24.99	9.55	55.09	34.99		Nov	19.18	40.09	24.99	14.36	50.09	34.99
	Dec	14.36	40.06	21.30	9.55	55.06	31.30		Dec	19.18	40.06	21.30	14.36	50.06	31.30
2011	Jan	15.08	39.93	18.10	10.02	54.93	28.10	2011	Jan	20.14	39.93	18.10	15.08	49.93	28.10
	Feb	15.08	39.36	16.67	10.02	54.36	26.67		Feb	20.14	39.36	16.67	15.08	49.36	26.67
	Mar	15.08	38.88	18.09	10.02	53.88	28.09		Mar	20.14	38.88	18.09	15.08	48.88	28.09
	Apr	15.08	38.72	21.38	10.02	53.72	31.38		Apr	20.14	38.72	21.38	15.08	48.72	31.38
	May	15.08	38.56	24.22	10.02	53.56	34.22		May	20.14	38.56	24.22	15.08	48.56	34.22
	Jun	15.08	38.37	26.59	10.02	53.37	36.59		Jun	20.14	38.37	26.59	15.08	48.37	36.59

	Jul	15.08	38.80	28.16	10.02	53.80	38.16		Jul	20.14	38.80	28.16	15.08	48.80	38.16
	Aug	15.08	38.92	29.15	10.02	53.92	39.15		Aug	20.14	38.92	29.15	15.08	48.92	39.15
	Sep	15.08	39.28	28.30	10.02	54.28	38.30		Sep	20.14	39.28	28.30	15.08	49.28	38.30
	Oct	15.08	39.64	27.14	10.02	54.64	37.14		Oct	20.14	39.64	27.14	15.08	49.64	37.14
	Nov	15.08	39.80	24.11	10.02	54.80	34.11		Nov	20.14	39.80	24.11	15.08	49.80	34.11
2012	Dec	15.08	40.14	20.93	10.02	55.14	30.93	2012	Dec	20.14	40.14	20.93	15.08	50.14	30.93
	Jan	15.80	39.89	17.63	10.50	54.89	27.63		Jan	21.10	39.89	17.63	15.80	49.89	27.63
	Feb	15.80	39.61	16.83	10.50	54.61	26.83		Feb	21.10	39.61	16.83	15.80	49.61	26.83
	Mar	15.80	38.87	17.98	10.50	53.87	27.98		Mar	21.10	38.87	17.98	15.80	48.87	27.98
	Apr	15.80	38.70	21.16	10.50	53.70	31.16		Apr	21.10	38.70	21.16	15.80	48.70	31.16
	May	15.80	38.46	23.97	10.50	53.46	33.97		May	21.10	38.46	23.97	15.80	48.46	33.97
	Jun	15.80	38.52	26.26	10.50	53.52	36.26		Jun	21.10	38.52	26.26	15.80	48.52	36.26
	Jul	15.80	38.71	28.75	10.50	53.71	38.75		Jul	21.10	38.71	28.75	15.80	48.71	38.75
	Aug	15.80	38.91	29.54	10.50	53.91	39.54		Aug	21.10	38.91	29.54	15.80	48.91	39.54
	Sep	15.80	39.15	28.00	10.50	54.15	38.00		Sep	21.10	39.15	28.00	15.80	49.15	38.00
	Oct	15.80	39.72	27.25	10.50	54.72	37.25		Oct	21.10	39.72	27.25	15.80	49.72	37.25
	Nov	15.80	40.05	24.64	10.50	55.05	34.64		Nov	21.10	40.05	24.64	15.80	50.05	34.64
2013	Dec	15.80	40.07	21.33	10.50	55.07	31.23	2013	Dec	21.10	40.07	21.33	15.80	50.07	31.23
	Jan	16.52	39.29	17.57	10.98	54.29	27.57		Jan	22.06	39.29	17.57	16.52	49.29	27.57
	Feb	16.52	39.52	16.83	10.98	54.52	26.83		Feb	22.06	39.52	16.83	16.52	49.52	26.83
	Mar	16.52	39.06	17.83	10.98	54.06	27.83		Mar	22.06	39.06	17.83	16.52	49.06	27.83
	Apr	16.52	38.46	21.15	10.98	53.46	31.15		Apr	22.06	38.46	21.15	16.52	48.46	31.15
	May	16.52	38.32	23.93	10.98	53.32	33.93		May	22.06	38.32	23.93	16.52	48.32	33.93
	Jun	16.52	38.41	26.62	10.98	53.41	36.62		Jun	22.06	38.41	26.62	16.52	48.41	36.62
	Jul	16.52	38.61	28.32	10.98	53.61	38.32		Jul	22.06	38.61	28.32	16.52	48.61	38.32
	Aug	16.52	38.92	28.73	10.98	53.92	38.73		Aug	22.06	38.92	28.73	16.52	48.92	38.73
	Sep	16.52	39.05	28.82	10.98	54.05	38.82		Sep	22.06	39.05	28.82	16.52	49.05	38.82
	Oct	16.52	39.60	27.39	10.98	54.60	37.39		Oct	22.06	39.60	27.39	16.52	49.60	37.39
	Nov	16.52	39.74	24.22	10.98	54.74	34.22		Nov	22.06	39.74	24.22	16.52	49.74	34.22
2014	Dec	16.52	40.10	21.04	10.98	55.10	31.04	2014	Dec	22.06	40.10	21.04	16.52	50.10	31.04
	Jan	17.24	39.79	17.69	11.45	54.79	27.69		Jan	23.02	39.79	17.69	17.24	49.79	27.69
	Feb	17.24	39.51	16.85	11.45	54.51	26.85		Feb	23.02	39.51	16.85	17.24	49.51	26.85
	Mar	17.24	38.99	18.09	11.45	53.99	28.09		Mar	23.02	38.99	18.09	17.24	48.99	28.09
	Apr	17.24	38.82	20.65	11.45	53.82	30.65		Apr	23.02	38.82	20.65	17.24	48.82	30.65
	May	17.24	38.62	23.64	11.45	53.62	33.64		May	23.02	38.62	23.64	17.24	48.62	33.64
	Jun	17.24	38.72	26.21	11.45	53.72	36.21		Jun	23.02	38.72	26.21	17.24	48.72	36.21
	Jul	17.24	38.84	28.69	11.45	53.84	38.69		Jul	23.02	38.84	28.69	17.24	48.84	38.69
	Aug	17.24	38.84	28.73	11.45	53.84	38.73		Aug	23.02	38.84	28.73	17.24	48.84	38.73
	Sep	17.24	39.31	28.54	11.45	54.31	38.54		Sep	23.02	39.31	28.54	17.24	49.31	38.54
	Oct	17.24	39.70	27.35	11.45	54.70	37.35		Oct	23.02	39.70	27.35	17.24	49.70	37.35
	Nov	17.24	40.10	24.77	11.45	55.10	34.77		Nov	23.02	40.10	24.77	17.24	50.10	34.77
2015	Dec	17.24	40.29	21.06	11.45	55.29	31.06	2015	Dec	23.02	40.29	21.06	17.24	50.29	31.06
	Jan	17.95	40.16	18.09	11.93	55.16	28.09		Jan	23.98	40.16	18.09	17.95	50.16	28.09
	Feb	17.95	39.76	16.77	11.93	54.76	26.77		Feb	23.98	39.76	16.77	17.95	49.76	26.77
	Mar	17.95	38.99	18.09	11.93	53.99	28.09		Mar	23.98	38.99	18.09	17.95	48.99	28.09
	Apr	17.95	38.88	20.93	11.93	53.88	30.93		Apr	23.98	38.88	20.93	17.95	48.88	30.93
	May	17.95	38.72	24.36	11.93	53.72	34.36		May	23.98	38.72	24.36	17.95	48.72	34.36
	Jun	17.95	38.78	26.36	11.93	53.78	36.36		Jun	23.98	38.78	26.36	17.95	48.78	36.36
	Jul	17.95	39.00	28.36	11.93	54.00	38.36		Jul	23.98	39.00	28.36	17.95	49.00	38.36
	Aug	17.95	39.08	29.39	11.93	54.08	39.39		Aug	23.98	39.08	29.39	17.95	49.08	39.39
	Sep	17.95	39.52	29.18	11.93	54.52	39.18		Sep	23.98	39.52	29.18	17.95	49.52	39.18
	Oct	17.95	39.88	27.35	11.93	54.88	37.35		Oct	23.98	39.88	27.35	17.95	49.88	37.35
	Nov	17.95	40.38	24.71	11.93	55.38	34.71		Nov	23.98	40.38	24.71	17.95	50.38	34.71
	Dec	17.95	40.33	21.23	11.93	55.33	31.23		Dec	23.98	40.33	21.23	17.95	50.33	31.23

Saudi Arabia (Khobar) MSF		Inflow			Outflow			Saudi Arabia (Khobar) RO	Inflow			Outflow			
		F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)		F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)	
2004	Jan	24.57	40.30	17.44	18.45	50.30	27.44	2004	Jan	13.43	40.18	17.84	10.05	50.18	27.84
	Feb	24.57	40.12	17.27	18.45	50.12	27.27		Feb	13.43	39.08	16.90	10.05	49.08	26.90
	Mar	24.57	40.06	18.44	18.45	50.06	28.44		Mar	13.43	39.06	18.27	10.05	49.06	28.27
	Apr	24.57	40.20	22.57	18.45	50.20	32.57		Apr	13.43	38.68	21.22	10.05	48.68	31.22

	May	24.57	40.15	24.83	18.45	50.15	34.83		May	13.43	38.26	23.84	10.05	48.26	33.84
	Jun	24.57	40.29	27.00	18.45	50.29	37.00		Jun	13.43	38.04	26.08	10.05	48.04	36.08
	Jul	24.57	40.36	29.05	18.45	50.36	39.05		Jul	13.43	38.68	28.27	10.05	48.68	38.27
	Aug	24.57	40.53	29.84	18.45	50.53	39.84		Aug	13.43	38.80	29.58	10.05	48.80	39.58
	Sep	24.57	40.77	29.04	18.45	50.77	39.04		Sep	13.43	39.44	28.23	10.05	49.44	38.23
	Oct	24.57	40.75	28.26	18.45	50.75	38.26		Oct	13.43	39.64	27.55	10.05	49.64	37.55
	Nov	24.57	40.64	24.81	18.45	50.64	34.81		Nov	13.43	39.94	25.35	10.05	49.94	35.35
2005	Dec	24.57	40.35	20.33	18.45	50.35	30.33	2005	Dec	13.43	39.92	21.04	10.05	49.92	31.04
	Jan	24.66	40.48	17.17	18.52	50.48	27.17		Jan	14.39	39.75	17.86	10.77	49.75	27.86
	Feb	24.66	40.37	16.84	18.52	50.37	26.84		Feb	14.39	39.43	16.64	10.77	49.43	26.64
	Mar	24.66	40.13	19.12	18.52	50.13	29.12		Mar	14.39	38.48	18.32	10.77	48.48	28.32
	Apr	24.66	40.16	21.85	18.52	50.16	31.85		Apr	14.39	38.63	20.58	10.77	48.63	30.58
	May	24.66	40.20	25.33	18.52	50.20	35.33		May	14.39	38.34	24.43	10.77	48.34	34.43
	Jun	24.66	40.27	27.13	18.52	50.27	37.13		Jun	14.39	38.30	26.29	10.77	48.30	36.29
	Jul	24.66	40.49	28.49	18.52	50.49	38.49		Jul	14.39	38.66	28.35	10.77	48.66	38.35
	Aug	24.66	40.78	29.59	18.52	50.78	39.59		Aug	14.39	38.97	29.21	10.77	48.97	39.21
	Sep	24.66	40.94	29.62	18.52	50.94	39.62		Sep	14.39	39.28	28.68	10.77	49.28	38.68
	Oct	24.66	40.82	27.58	18.52	50.82	37.58		Oct	14.39	39.82	27.19	10.77	49.82	37.19
	Nov	24.66	40.67	24.78	18.52	50.67	34.78		Nov	14.39	39.98	24.57	10.77	49.98	34.57
2006	Dec	24.66	40.48	20.95	18.52	50.48	30.95	2006	Dec	14.39	39.91	20.94	10.77	49.91	30.94
	Jan	24.75	40.30	17.67	18.59	50.30	27.67		Jan	15.35	39.79	17.89	11.49	49.79	27.89
	Feb	24.75	40.20	16.84	18.59	50.20	26.84		Feb	15.35	38.81	16.68	11.49	48.81	26.68
	Mar	24.75	40.17	19.30	18.59	50.17	29.30		Mar	15.35	38.66	18.33	11.49	48.66	28.33
	Apr	24.75	40.08	21.44	18.59	50.08	31.44		Apr	15.35	38.19	20.76	11.49	48.19	30.76
	May	24.75	40.14	24.84	18.59	50.14	34.84		May	15.35	38.14	23.72	11.49	48.14	33.72
	Jun	24.75	40.30	26.82	18.59	50.30	36.82		Jun	15.35	38.34	26.36	11.49	48.34	36.36
	Jul	24.75	40.39	28.45	18.59	50.39	38.45		Jul	15.35	38.57	28.35	11.49	48.57	38.35
	Aug	24.75	40.80	29.33	18.59	50.80	39.33		Aug	15.35	38.87	28.83	11.49	48.87	38.83
	Sep	24.75	40.92	29.79	18.59	50.92	39.79		Sep	15.35	39.27	29.02	11.49	49.27	39.02
	Oct	24.75	40.86	27.88	18.59	50.86	37.88		Oct	15.35	39.73	27.77	11.49	49.73	37.77
	Nov	24.75	40.80	24.57	18.59	50.80	34.57		Nov	15.35	39.87	24.56	11.49	49.87	34.56
2007	Dec	24.75	40.57	20.80	18.59	50.57	30.80	2007	Dec	15.35	39.57	20.86	11.49	49.57	30.86
	Jan	24.85	40.48	17.36	18.66	50.48	27.36		Jan	16.30	39.63	17.98	12.21	49.63	27.98
	Feb	24.85	40.44	16.88	18.66	50.44	26.88		Feb	16.30	38.99	16.52	12.21	48.99	26.52
	Mar	24.85	40.34	18.67	18.66	50.34	28.67		Mar	16.30	38.78	18.16	12.21	48.78	28.16
	Apr	24.85	40.22	22.18	18.66	50.22	32.18		Apr	16.30	38.30	20.84	12.21	48.30	30.84
	May	24.85	40.21	25.14	18.66	50.21	35.14		May	16.30	38.51	23.41	12.21	48.51	33.41
	Jun	24.85	40.38	27.09	18.66	50.38	37.09		Jun	16.30	38.31	26.05	12.21	48.31	36.05
	Jul	24.85	40.56	29.04	18.66	50.56	39.04		Jul	16.30	38.79	28.43	12.21	48.79	38.43
	Aug	24.85	40.73	29.69	18.66	50.73	39.69		Aug	16.30	38.92	29.12	12.21	48.92	39.12
	Sep	24.85	40.83	29.54	18.66	50.83	39.54		Sep	16.30	39.39	28.74	12.21	49.39	38.74
	Oct	24.85	40.84	28.20	18.66	50.84	38.20		Oct	16.30	39.61	27.07	12.21	49.61	37.07
	Nov	24.85	40.78	25.15	18.66	50.78	35.15		Nov	16.30	40.00	25.34	12.21	50.00	35.34
2008	Dec	24.85	40.61	20.38	18.66	50.61	30.38	2008	Dec	16.30	39.95	21.32	12.21	49.95	31.32
	Jan	24.94	40.54	17.29	18.73	50.54	27.29		Jan	17.26	39.68	17.75	12.93	49.68	27.75
	Feb	24.94	40.43	16.77	18.73	50.43	26.77		Feb	17.26	38.37	16.83	12.93	49.37	26.83
	Mar	24.94	40.34	18.21	18.73	50.34	28.21		Mar	17.26	38.92	18.20	12.93	48.92	28.20
	Apr	24.94	40.37	21.75	18.73	50.37	31.75		Apr	17.26	38.41	20.68	12.93	48.41	30.68
	May	24.94	40.31	25.28	18.73	50.31	35.28		May	17.26	38.43	23.98	12.93	48.43	33.98
	Jun	24.94	40.44	27.05	18.73	50.44	37.05		Jun	17.26	38.22	26.29	12.93	48.22	36.29
	Jul	24.94	40.84	28.62	18.73	50.84	38.62		Jul	17.26	38.61	28.17	12.93	48.61	38.17
	Aug	24.94	40.87	29.11	18.73	50.87	39.11		Aug	17.26	38.78	29.05	12.93	48.78	39.05
	Sep	24.94	40.95	29.34	18.73	50.95	39.34		Sep	17.26	39.23	28.96	12.93	49.23	38.96
	Oct	24.94	40.87	27.38	18.73	50.87	37.38		Oct	17.26	39.73	27.61	12.93	49.73	37.61
	Nov	24.94	40.48	24.40	18.73	50.48	34.40		Nov	17.26	39.92	24.66	12.93	49.92	34.66
2009	Dec	24.94	40.63	20.41	18.73	50.63	30.41	2009	Dec	17.26	39.93	20.98	12.93	49.93	30.98
	Jan	25.03	40.56	17.62	18.80	50.56	27.62		Jan	18.22	39.66	17.50	13.65	49.66	27.50
	Feb	25.03	40.56	17.04	18.80	50.56	27.04		Feb	18.22	39.31	16.56	13.65	49.31	26.56
	Mar	25.03	40.37	18.40	18.80	50.37	28.40		Mar	18.22	39.00	18.09	13.65	49.00	28.09
	Apr	25.03	40.35	21.69	18.80	50.35	31.69		Apr	18.22	38.63	20.82	13.65	48.63	30.82
	May	25.03	40.25	24.68	18.80	50.25	34.68		May	18.22	38.34	23.84	13.65	48.34	33.84
	Jun	25.03	40.45	26.76	18.80	50.45	36.76		Jun	18.22	38.53	26.20	13.65	48.53	36.20
	Jul	25.03	40.54	28.57	18.80	50.54	38.57		Jul	18.22	38.64	28.28	13.65	48.64	38.28
	Aug	25.03	40.87	29.18	18.80	50.87	39.18		Aug	18.22	38.99	28.80	13.65	48.99	38.80

	Sep	25.03	40.90	28.45	18.80	50.90	38.45		Sep	18.22	39.36	28.00	13.65	49.36	38.00
	Oct	25.03	40.80	26.99	18.80	50.80	36.99		Oct	18.22	39.25	26.84	13.65	49.25	36.84
	Nov	25.03	40.88	24.68	18.80	50.88	34.63		Nov	18.22	39.98	24.63	13.65	49.98	34.63
	Dec	25.03	40.63	20.58	18.80	50.63	30.58		Dec	18.22	39.92	21.34	13.65	49.92	31.34
2010	Jan	25.12	40.57	17.89	18.86	50.57	27.89	2010	Jan	19.18	39.66	18.11	14.36	49.66	28.11
	Feb	25.12	40.47	17.25	18.86	50.47	27.25		Feb	19.18	39.17	16.55	14.36	49.17	17.05
	Mar	25.12	40.31	18.89	18.86	50.31	28.89		Mar	19.18	38.72	18.03	14.36	48.72	28.03
	Apr	25.12	40.34	21.71	18.86	50.34	31.71		Apr	19.18	38.41	21.41	14.36	48.41	31.41
	May	25.12	40.46	24.64	18.86	50.46	34.64		May	19.18	38.00	23.69	14.36	48.00	33.69
	Jun	25.12	40.58	26.98	18.86	50.58	36.98		Jun	19.18	37.98	25.86	14.36	47.98	35.86
	Jul	25.12	40.69	28.53	18.86	50.69	38.53		Jul	19.18	38.55	28.08	14.36	48.55	38.08
	Aug	25.12	40.95	29.50	18.86	50.95	39.50		Aug	19.18	38.66	28.99	14.36	48.66	38.99
	Sep	25.12	41.07	29.58	18.86	51.07	39.58		Sep	19.18	39.27	29.57	14.36	49.27	39.57
	Oct	25.12	41.02	28.26	18.86	51.02	38.26		Oct	19.18	39.79	28.16	14.36	49.79	38.16
	Nov	25.12	40.87	24.74	18.86	50.87	34.74		Nov	19.18	40.09	24.99	14.36	50.09	34.99
	Dec	25.12	40.74	20.85	18.86	50.74	30.85		Dec	19.18	40.06	21.30	14.36	50.06	31.30
2011	Jan	25.21	40.78	17.67	18.93	50.78	27.67	2011	Jan	20.14	39.93	18.10	15.08	49.93	28.10
	Feb	25.21	40.80	17.15	18.93	50.80	27.15		Feb	20.14	39.36	16.67	15.08	49.36	26.67
	Mar	25.21	40.62	18.88	18.93	50.62	28.88		Mar	20.14	38.88	18.09	15.08	48.88	28.09
	Apr	25.21	40.98	21.48	18.93	50.98	31.48		Apr	20.14	38.72	21.38	15.08	48.72	31.38
	May	25.21	40.81	25.02	18.93	50.81	35.02		May	20.14	38.56	24.22	15.08	48.56	34.22
	Jun	25.21	40.95	27.54	18.93	50.95	37.54		Jun	20.14	38.37	26.59	15.08	48.37	36.59
	Jul	25.21	41.27	28.21	18.93	51.27	38.21		Jul	20.14	38.80	28.16	15.08	48.80	38.16
	Aug	25.21	41.15	29.87	18.93	51.15	39.87		Aug	20.14	38.92	29.15	15.08	48.92	39.15
	Sep	25.21	41.18	29.16	18.93	51.18	39.16		Sep	20.14	39.28	28.30	15.08	49.28	38.30
	Oct	25.21	41.17	27.63	18.93	51.17	37.63		Oct	20.14	39.64	27.14	15.08	49.64	37.14
	Nov	25.21	41.15	24.06	18.93	51.15	34.06		Nov	20.14	39.80	24.11	15.08	49.80	34.11
	Dec	25.21	40.98	20.00	18.93	50.98	30.00		Dec	20.14	40.14	20.93	15.08	50.14	30.93
2012	Jan	25.30	41.29	17.27	19.00	51.29	27.27	2012	Jan	21.10	39.89	17.63	15.80	49.89	27.63
	Feb	25.30	41.23	16.68	19.00	51.23	26.68		Feb	21.10	39.61	16.83	15.80	49.61	26.83
	Mar	25.30	41.12	18.71	19.00	51.12	28.71		Mar	21.10	38.87	17.98	15.80	48.87	27.98
	Apr	25.30	41.21	21.70	19.00	51.21	31.70		Apr	21.10	38.70	21.16	15.80	48.70	31.16
	May	25.30	41.09	24.88	19.00	51.09	34.88		May	21.10	38.46	23.97	15.80	48.46	33.97
	Jun	25.30	41.01	26.35	19.00	51.01	36.35		Jun	21.10	38.52	26.26	15.80	48.52	36.26
	Jul	25.30	41.29	28.87	19.00	51.29	38.87		Jul	21.10	38.71	28.75	15.80	48.71	38.75
	Aug	25.30	41.50	29.75	19.00	51.50	39.75		Aug	21.10	38.91	29.54	15.80	48.91	39.54
	Sep	25.30	41.43	28.79	19.00	51.43	38.79		Sep	21.10	39.15	28.00	15.80	49.15	38.00
	Oct	25.30	41.33	27.82	19.00	51.33	37.82		Oct	21.10	39.72	27.25	15.80	49.72	37.25
	Nov	25.30	41.26	24.53	19.00	51.26	34.53		Nov	21.10	40.05	24.64	15.80	50.05	34.64
	Dec	25.30	40.96	20.47	19.00	50.96	30.47		Dec	21.10	40.07	21.33	15.80	50.07	31.23
2013	Jan	25.39	40.92	17.81	19.07	50.92	27.81	2013	Jan	22.06	39.29	17.57	16.52	49.29	27.57
	Feb	25.39	41.13	17.05	19.07	51.13	27.05		Feb	22.06	39.52	16.83	16.52	49.52	26.83
	Mar	25.39	40.91	18.69	19.07	50.91	28.69		Mar	22.06	39.06	17.83	16.52	49.06	27.83
	Apr	25.39	40.93	21.75	19.07	50.93	31.75		Apr	22.06	38.46	21.15	16.52	48.46	31.15
	May	25.39	40.87	24.85	19.07	50.87	34.85		May	22.06	38.32	23.93	16.52	48.32	33.93
	Jun	25.39	41.10	26.84	19.07	51.10	36.84		Jun	22.06	38.41	26.62	16.52	48.41	36.62
	Jul	25.39	41.64	29.03	19.07	51.64	39.03		Jul	22.06	38.61	28.32	16.52	48.61	38.32
	Aug	25.39	41.44	28.80	19.07	51.44	38.80		Aug	22.06	38.92	28.73	16.52	48.92	38.73
	Sep	25.39	41.54	29.18	19.07	51.54	39.18		Sep	22.06	39.05	28.82	16.52	49.05	38.82
	Oct	25.39	41.44	27.30	19.07	51.44	37.30		Oct	22.06	39.60	27.39	16.52	49.60	37.39
	Nov	25.39	41.53	24.00	19.07	51.53	34.00		Nov	22.06	39.74	24.22	16.52	49.74	34.22
	Dec	25.39	41.43	20.97	19.07	51.43	30.97		Dec	22.06	40.10	21.04	16.52	50.10	31.04
2014	Jan	25.48	41.41	17.42	19.14	51.41	27.42	2014	Jan	23.02	39.79	17.69	17.24	49.79	27.69
	Feb	25.48	41.13	17.12	19.14	51.13	27.12		Feb	23.02	39.51	16.85	17.24	49.51	26.85
	Mar	25.48	41.00	18.39	19.14	51.00	28.93		Mar	23.02	38.99	18.09	17.24	48.99	28.09
	Apr	25.48	40.87	21.41	19.14	50.87	31.41		Apr	23.02	38.82	20.65	17.24	48.82	30.65
	May	25.48	40.97	24.95	19.14	50.97	34.95		May	23.02	38.62	23.64	17.24	48.62	33.64
	Jun	25.48	41.12	27.19	19.14	51.12	37.19		Jun	23.02	38.72	26.21	17.24	48.72	36.21
	Jul	25.48	41.42	29.43	19.14	51.42	39.43		Jul	23.02	38.84	28.69	17.24	48.84	38.69
	Aug	25.48	41.52	29.44	19.14	51.52	39.44		Aug	23.02	38.84	28.73	17.24	48.84	38.73
	Sep	25.48	41.67	29.12	19.14	51.67	39.12		Sep	23.02	39.31	28.54	17.24	49.31	38.54
	Oct	25.48	41.49	27.71	19.14	51.49	37.71		Oct	23.02	39.70	27.35	17.24	49.70	37.35
	Nov	25.48	41.48	24.00	19.14	51.48	34.00		Nov	23.02	40.10	24.77	17.24	50.10	34.77
	Dec	25.48	41.31	20.20	19.14	51.31	30.20		Dec	23.02	40.29	21.06	17.24	50.29	31.06

2015	Jan	25.57	41.47	17.46	19.20	51.47	27.46	2015	Jan	23.98	40.16	18.09	17.95	50.16	28.09
	Feb	25.57	41.46	16.96	19.20	51.46	26.96		Feb	23.98	39.76	16.77	17.95	49.76	26.77
	Mar	25.57	41.00	18.93	19.20	51.00	28.93		Mar	23.98	38.99	18.09	17.95	48.99	28.09
	Apr	25.57	41.13	21.68	19.20	51.13	31.68		Apr	23.98	38.88	20.93	17.95	48.88	30.93
	May	25.57	41.72	24.91	19.20	51.72	34.91		May	23.98	38.72	24.36	17.95	48.72	34.36
	Jun	25.57	41.86	27.40	19.20	51.86	37.40		Jun	23.98	38.78	26.36	17.95	48.78	36.36
	Jul	25.57	41.85	28.64	19.20	51.85	38.64		Jul	23.98	39.00	28.36	17.95	49.00	38.36
	Aug	24.57	40.30	17.44	18.45	50.30	27.44		Aug	23.98	39.08	29.39	17.95	49.08	39.39
	Sep	24.57	40.12	17.27	18.45	50.12	27.27		Sep	23.98	39.52	29.18	17.95	49.52	39.18
	Oct	24.57	40.06	18.44	18.45	50.06	28.44		Oct	23.98	39.88	27.35	17.95	49.88	37.35
	Nov	24.57	40.20	22.57	18.45	50.20	32.57		Nov	23.98	40.38	24.71	17.95	50.38	34.71
	Dec	24.57	40.15	24.83	18.45	50.15	34.83		Dec	23.98	40.33	21.23	17.95	50.33	31.23

Saudi Arabia (Jubail) MED		Inflow			Outflow			Saudi Arabia (Jubail) MSF		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	18.14	39.44	17.45	12.09	54.44	27.45	2004	Jan	63.66	39.44	17.45	47.75	49.44	27.45
	Feb	18.14	39.32	17.07	12.09	54.32	27.07		Feb	63.66	39.32	17.07	47.75	49.32	27.07
	Mar	18.14	39.30	18.48	12.09	54.03	28.48		Mar	63.66	39.30	18.48	47.75	49.03	28.48
	Apr	18.14	39.12	22.24	12.09	54.12	32.24		Apr	63.66	39.12	22.24	47.75	49.12	32.24
	May	18.14	38.96	24.97	12.09	53.96	34.97		May	63.66	38.96	24.97	47.75	48.96	34.97
	Jun	18.14	38.93	27.01	12.09	53.93	37.01		Jun	63.66	38.93	27.01	47.75	48.93	37.01
	Jul	18.14	39.24	29.12	12.09	54.24	39.12		Jul	63.66	39.24	29.12	47.75	49.24	39.12
	Aug	18.14	39.53	29.75	12.09	54.53	39.75		Aug	63.66	39.53	29.75	47.75	49.53	39.75
	Sep	18.14	39.93	28.90	12.09	54.93	38.90		Sep	63.66	39.93	28.90	47.75	49.93	38.90
	Oct	18.14	39.65	28.12	12.09	54.65	38.12		Oct	63.66	39.65	28.12	47.75	49.65	38.12
	Nov	18.14	39.49	25.31	12.09	54.49	35.31		Nov	63.66	39.49	25.31	47.75	49.49	35.31
	Dec	18.14	39.84	20.04	12.09	54.84	30.04		Dec	63.66	39.84	20.04	47.75	49.84	30.04
2005	Jan	19.43	39.66	16.95	12.95	54.66	26.95	2005	Jan	64.62	39.66	16.95	48.47	49.66	26.95
	Feb	19.43	39.39	16.81	12.95	54.39	26.81		Feb	64.62	39.39	16.81	48.47	49.39	26.81
	Mar	19.43	39.17	18.74	12.95	54.17	28.74		Mar	64.62	39.17	18.74	48.47	49.17	28.74
	Apr	19.43	39.22	21.80	12.95	54.22	31.80		Apr	64.62	39.22	21.80	48.47	49.22	31.80
	May	19.43	39.17	25.05	12.95	54.17	35.05		May	64.62	39.17	25.05	48.47	49.17	35.05
	Jun	19.43	39.21	27.10	12.95	54.21	37.10		Jun	64.62	39.21	27.10	48.47	49.21	37.10
	Jul	19.43	39.65	28.86	12.95	54.65	38.86		Jul	64.62	39.65	28.86	48.47	49.65	38.86
	Aug	19.43	39.76	29.81	12.95	54.76	39.81		Aug	64.62	39.76	29.81	48.47	49.76	39.81
	Sep	19.43	39.94	29.49	12.95	54.94	39.49		Sep	64.62	39.94	29.49	48.47	49.94	39.49
	Oct	19.43	39.88	27.55	12.95	54.88	37.55		Oct	64.62	39.88	27.55	48.47	49.88	37.55
	Nov	19.43	39.65	24.86	12.95	54.65	34.86		Nov	64.62	39.65	24.86	48.47	49.65	34.86
	Dec	19.43	39.66	20.46	12.95	54.66	30.46		Dec	64.62	39.66	20.46	48.47	49.66	30.46
2006	Jan	20.73	39.56	17.20	13.82	54.56	27.20	2006	Jan	65.57	39.56	17.20	49.19	49.56	27.20
	Feb	20.73	39.26	16.75	13.82	54.26	26.75		Feb	65.57	39.26	16.75	49.19	49.26	26.75
	Mar	20.73	39.08	18.69	13.82	54.08	28.69		Mar	65.57	39.08	18.69	49.19	49.08	28.69
	Apr	20.73	38.93	20.80	13.82	53.93	30.80		Apr	65.57	38.93	20.80	49.19	48.93	30.80
	May	20.73	39.01	24.62	13.82	54.01	34.62		May	65.57	39.01	24.62	49.19	49.01	34.62
	Jun	20.73	39.26	27.04	13.82	54.26	37.04		Jun	65.57	39.26	27.04	49.19	49.26	37.04
	Jul	20.73	39.56	28.99	13.82	54.56	38.99		Jul	65.57	39.56	28.99	49.19	49.56	38.99
	Aug	20.73	39.73	29.54	13.82	54.73	39.54		Aug	65.57	39.73	29.54	49.19	49.73	39.54
	Sep	20.73	39.75	29.72	13.82	54.75	39.72		Sep	65.57	39.75	29.72	49.19	49.75	39.72
	Oct	20.73	39.84	27.97	13.82	54.84	37.97		Oct	65.57	39.84	27.97	49.19	49.84	37.97
	Nov	20.73	39.34	24.95	13.82	54.34	34.95		Nov	65.57	39.34	24.95	49.19	49.34	34.95
	Dec	20.73	39.54	21.00	13.82	54.54	31.00		Dec	65.57	39.54	21.00	49.19	49.54	31.00
2007	Jan	22.02	39.56	17.09	14.68	54.56	27.09	2007	Jan	66.53	39.56	17.09	49.91	49.56	27.09
	Feb	22.02	39.28	16.70	14.68	54.28	26.70		Feb	66.53	39.28	16.70	49.91	49.28	26.70
	Mar	22.02	39.26	18.45	14.68	54.26	28.45		Mar	66.53	39.26	18.45	49.91	49.26	28.45
	Apr	22.02	39.09	21.41	14.68	54.09	31.41		Apr	66.53	39.09	21.41	49.91	49.09	31.41
	May	22.02	39.05	24.60	14.68	54.05	34.60		May	66.53	39.05	24.60	49.91	49.05	34.60
	Jun	22.02	39.14	27.19	14.68	54.14	37.19		Jun	66.53	39.14	27.19	49.91	49.14	37.19
	Jul	22.02	39.59	29.17	14.68	54.59	39.17		Jul	66.53	39.59	29.17	49.91	49.59	39.17
	Aug	22.02	39.56	29.65	14.68	54.56	39.65		Aug	66.53	39.56	29.65	49.91	49.56	39.65
	Sep	22.02	39.82	29.27	14.68	54.82	39.27		Sep	66.53	39.82	29.27	49.91	49.82	39.27
	Oct	22.02	39.89	27.92	14.68	54.89	37.92		Oct	66.53	39.89	27.92	49.91	49.89	37.92

	Nov	22.02	39.75	25.50	14.68	54.75	35.50		Nov	66.53	39.75	25.50	49.91	49.75	35.50
	Dec	22.02	39.81	20.21	14.68	54.81	30.21		Dec	66.53	39.81	20.21	49.91	49.81	30.21
2008	Jan	23.32	39.32	17.64	15.55	54.32	27.64	2008	Jan	67.48	39.32	17.64	50.63	49.32	27.64
	Feb	23.32	39.18	16.66	15.55	54.18	26.66		Feb	67.48	39.18	16.66	50.63	49.18	26.66
	Mar	23.32	39.12	18.20	15.55	54.12	28.20		Mar	67.48	39.12	18.20	50.63	49.12	28.20
	Apr	23.32	38.84	21.07	15.55	53.84	31.07		Apr	67.48	38.84	21.07	50.63	48.84	31.07
	May	23.32	39.01	25.08	15.55	54.01	35.08		May	67.48	39.01	25.08	50.63	49.01	35.08
	Jun	23.32	39.02	26.96	15.55	54.02	36.96		Jun	67.48	39.02	26.96	50.63	49.02	36.96
	Jul	23.32	39.41	29.01	15.55	54.41	39.01		Jul	67.48	39.41	29.01	50.63	49.41	39.01
	Aug	23.32	39.56	29.46	15.55	54.56	39.46		Aug	67.48	39.56	29.46	50.63	49.56	39.46
	Sep	23.32	39.73	29.39	15.55	54.73	39.39		Sep	67.48	39.73	29.39	50.63	49.73	39.39
	Oct	23.32	39.52	27.40	15.55	54.52	37.40		Oct	67.48	39.52	27.40	50.63	49.52	37.40
	Nov	23.32	39.53	24.38	15.55	54.53	34.38		Nov	67.48	39.53	24.38	50.63	49.53	34.38
	Dec	23.32	39.44	20.68	15.55	54.44	30.68		Dec	67.48	39.44	20.68	50.63	49.44	30.68
2009	Jan	24.61	39.57	17.61	16.41	54.57	27.61	2009	Jan	68.44	39.57	17.61	51.35	49.57	27.61
	Feb	24.61	39.02	17.18	16.41	54.02	27.18		Feb	68.44	39.02	17.18	51.35	49.02	27.18
	Mar	24.61	38.86	18.32	16.41	53.86	28.32		Mar	68.44	38.86	18.32	51.35	48.86	28.32
	Apr	24.61	39.02	21.76	16.41	54.02	31.76		Apr	68.44	39.02	21.76	51.35	49.02	31.76
	May	24.61	39.00	24.73	16.41	54.00	34.73		May	68.44	39.00	24.73	51.35	49.00	34.73
	Jun	24.61	39.29	27.01	16.41	54.29	37.01		Jun	68.44	39.29	27.01	51.35	49.29	37.01
	Jul	24.61	39.31	28.95	16.41	54.31	38.95		Jul	68.44	39.31	28.95	51.35	49.31	38.95
	Aug	24.61	39.56	29.34	16.41	54.56	39.34		Aug	68.44	39.56	29.34	51.35	49.56	39.34
	Sep	24.61	39.50	28.52	16.41	54.50	38.52		Sep	68.44	39.50	28.52	51.35	49.50	38.52
	Oct	24.61	39.56	26.82	16.41	54.56	36.82		Oct	68.44	39.56	26.82	51.35	49.56	36.82
	Nov	24.61	39.31	24.78	16.41	54.31	34.78		Nov	68.44	39.31	24.78	51.35	49.31	34.78
	Dec	24.61	39.54	20.71	16.41	54.54	30.71		Dec	68.44	39.54	20.71	51.35	49.54	30.71
2010	Jan	25.91	39.23	18.31	17.27	54.23	28.31	2010	Jan	69.39	39.23	18.31	52.06	49.23	28.31
	Feb	25.91	39.12	17.13	17.27	54.12	27.13		Feb	69.39	39.12	17.13	52.06	49.12	27.13
	Mar	25.91	39.17	18.34	17.27	54.17	28.34		Mar	69.39	39.17	18.34	52.06	49.17	28.34
	Apr	25.91	39.32	21.60	17.27	54.32	31.60		Apr	69.39	39.32	21.60	52.06	49.32	31.60
	May	25.91	39.10	24.38	17.27	54.10	34.38		May	69.39	39.10	24.38	52.06	49.10	34.38
	Jun	25.91	39.19	27.05	17.27	54.19	37.05		Jun	69.39	39.19	27.05	52.06	49.19	37.05
	Jul	25.91	39.51	28.76	17.27	54.51	38.76		Jul	69.39	39.51	28.76	52.06	49.51	38.76
	Aug	25.91	39.56	29.37	17.27	54.56	39.37		Aug	69.39	39.56	29.37	52.06	49.56	39.37
	Sep	25.91	39.61	29.34	17.27	54.61	39.34		Sep	69.39	39.61	29.34	52.06	49.61	39.34
	Oct	25.91	39.59	27.96	17.27	54.59	37.96		Oct	69.39	39.59	27.96	52.06	49.59	37.96
	Nov	25.91	39.64	24.80	17.27	54.64	34.80		Nov	69.39	39.64	24.80	52.06	49.64	34.80
	Dec	25.91	39.73	20.73	17.27	54.73	30.73		Dec	69.39	39.73	20.73	52.06	49.73	30.73
2011	Jan	27.20	39.58	17.68	18.14	54.58	27.68	2011	Jan	70.35	39.58	17.68	52.78	49.58	27.68
	Feb	27.20	39.14	17.15	18.14	54.14	27.15		Feb	70.35	39.14	17.15	52.78	49.14	27.15
	Mar	27.20	38.99	18.35	18.14	53.99	28.35		Mar	70.35	38.99	18.35	52.78	48.99	28.35
	Apr	27.20	39.18	21.48	18.14	54.18	31.48		Apr	70.35	39.18	21.48	52.78	49.18	31.48
	May	27.20	39.03	24.63	18.14	54.03	34.63		May	70.35	39.03	24.63	52.78	49.03	34.63
	Jun	27.20	39.19	27.39	18.14	54.19	37.39		Jun	70.35	39.19	27.39	52.78	49.19	37.39
	Jul	27.20	39.49	28.70	18.14	54.49	38.70		Jul	70.35	39.49	28.70	52.78	49.49	38.70
	Aug	27.20	39.48	29.79	18.14	54.48	39.79		Aug	70.35	39.48	29.79	52.78	49.48	39.79
	Sep	27.20	39.89	28.93	18.14	54.89	38.93		Sep	70.35	39.89	28.93	52.78	49.89	38.93
	Oct	27.20	39.57	27.36	18.14	54.57	37.63		Oct	70.35	39.57	27.36	52.78	49.57	37.63
	Nov	27.20	39.28	23.95	18.14	54.28	33.95		Nov	70.35	39.28	23.95	52.78	49.28	33.95
	Dec	27.20	39.22	19.84	18.14	54.22	29.84		Dec	70.35	39.22	19.84	52.78	49.22	29.84
2012	Jan	28.50	39.56	17.00	19.00	54.56	27.00	2012	Jan	71.30	39.56	17.00	53.50	49.56	27.00
	Feb	28.50	39.08	16.82	19.00	54.08	26.82		Feb	71.30	39.08	16.82	53.50	49.08	26.82
	Mar	28.50	39.04	18.32	19.00	54.04	28.32		Mar	71.30	39.04	18.32	53.50	49.04	28.32
	Apr	28.50	39.10	21.45	19.00	54.10	31.45		Apr	71.30	39.10	21.45	53.50	49.10	31.45
	May	28.50	38.95	24.58	19.00	53.95	34.58		May	71.30	38.95	24.58	53.50	48.95	34.58
	Jun	28.50	39.14	26.41	19.00	54.14	36.14		Jun	71.30	39.14	26.41	53.50	49.14	36.14
	Jul	28.50	39.43	28.99	19.00	54.43	38.99		Jul	71.30	39.43	28.99	53.50	49.43	38.99
	Aug	28.50	39.62	29.79	19.00	54.62	39.79		Aug	71.30	39.62	29.79	53.50	49.62	39.79
	Sep	28.50	39.96	28.72	19.00	54.96	38.72		Sep	71.30	39.96	28.72	53.50	49.96	38.72
	Oct	28.50	39.60	27.58	19.00	54.60	37.58		Oct	71.30	39.60	27.58	53.50	49.60	37.58
	Nov	28.50	39.30	24.74	19.00	54.30	34.74		Nov	71.30	39.30	24.74	53.50	49.30	34.74
	Dec	28.50	39.27	20.48	19.00	54.27	30.48		Dec	71.30	39.27	20.48	53.50	49.27	30.48
2013	Jan	29.80	39.43	17.65	19.86	54.43	27.65	2013	Jan	72.25	39.43	17.65	54.22	49.43	27.65
	Feb	29.80	39.21	16.84	19.86	54.21	26.84		Feb	72.25	39.21	16.84	54.22	49.21	26.84

	Mar	29.80	39.13	18.34	19.86	54.13	28.34		Mar	72.25	39.13	18.34	54.22	49.13	28.34
	Apr	29.80	39.05	21.73	19.86	54.05	31.73		Apr	72.25	39.05	21.73	54.22	49.05	31.73
	May	29.80	39.01	24.81	19.86	54.01	34.81		May	72.25	39.01	24.81	54.22	49.01	34.81
	Jun	29.80	39.33	26.96	19.86	54.33	36.96		Jun	72.25	39.33	26.96	54.22	49.33	36.96
	Jul	29.80	39.40	29.06	19.86	54.40	39.06		Jul	72.25	39.40	29.06	54.22	49.40	39.06
	Aug	29.80	39.56	29.07	19.86	54.56	39.07		Aug	72.25	39.56	29.07	54.22	49.56	39.07
	Sep	29.80	39.67	29.02	19.86	54.67	39.02		Sep	72.25	39.67	29.02	54.22	49.67	39.02
	Oct	29.80	39.77	27.09	19.86	54.77	37.09		Oct	72.25	39.77	27.09	54.22	49.77	37.09
	Nov	29.80	39.52	23.85	19.86	54.52	33.85		Nov	72.25	39.52	23.85	54.22	49.52	33.85
	Dec	29.80	39.31	21.10	19.86	54.31	31.10		Dec	72.25	39.31	21.10	54.22	49.31	31.10
2014	Jan	31.09	39.05	17.77	20.73	54.05	27.77	2014	Jan	73.21	39.05	17.77	54.94	49.05	27.77
	Feb	31.09	38.80	17.19	20.73	53.80	27.19		Feb	73.21	38.80	17.19	54.94	48.80	27.19
	Mar	31.09	38.70	18.35	20.73	53.70	28.35		Mar	73.21	38.70	18.35	54.94	48.70	28.35
	Apr	31.09	38.71	20.99	20.73	53.71	30.99		Apr	73.21	38.71	20.99	54.94	48.71	30.99
	May	31.09	38.82	24.70	20.73	53.82	34.70		May	73.21	38.82	24.70	54.94	48.82	34.70
	Jun	31.09	39.02	27.04	20.73	54.02	37.04		Jun	73.21	39.02	27.04	54.94	49.02	37.04
	Jul	31.09	39.42	29.21	20.73	54.42	39.21		Jul	73.21	39.42	29.21	54.94	49.42	39.21
	Aug	31.09	39.87	29.30	20.73	54.87	39.30		Aug	73.21	39.87	29.30	54.94	49.87	39.30
	Sep	31.09	39.61	28.87	20.73	54.61	38.87		Sep	73.21	39.61	28.87	54.94	49.61	38.87
	Oct	31.09	39.95	27.55	20.73	54.95	37.55		Oct	73.21	39.95	27.55	54.94	49.95	37.55
	Nov	31.09	39.66	24.43	20.73	54.66	34.43		Nov	73.21	39.66	24.43	54.94	49.66	34.43
	Dec	31.09	39.31	20.68	20.73	54.31	30.68		Dec	73.21	39.31	20.68	54.94	49.31	30.68
2015	Jan	32.39	39.55	17.70	21.59	54.55	27.70	2015	Jan	74.16	39.55	17.70	55.65	49.55	27.70
	Feb	32.39	39.29	17.01	21.59	54.29	27.01		Feb	74.16	39.29	17.01	55.65	49.29	27.01
	Mar	32.39	38.70	18.35	21.59	53.70	28.35		Mar	74.16	38.70	18.35	55.65	48.70	28.35
	Apr	32.39	39.23	21.29	21.59	54.23	31.29		Apr	74.16	39.23	21.29	55.65	49.23	31.29
	May	32.39	39.59	24.86	21.59	54.59	34.86		May	74.16	39.59	24.86	55.65	49.59	34.86
	Jun	32.39	39.45	27.48	21.59	54.45	37.48		Jun	74.16	39.45	27.48	55.65	49.45	37.48
	Jul	32.39	39.54	28.90	21.59	54.54	38.90		Jul	74.16	39.54	28.90	55.65	49.54	38.90
	Aug	32.39	39.50	29.91	21.59	54.50	39.91		Aug	74.16	39.50	29.91	55.65	49.50	39.91
	Sep	32.39	39.90	29.28	21.59	54.90	39.28		Sep	74.16	39.90	29.28	55.65	49.90	39.28
	Oct	32.39	40.07	28.09	21.59	55.07	38.09		Oct	74.16	40.07	28.09	55.65	50.07	38.09
	Nov	32.39	39.39	24.62	21.59	54.39	34.62		Nov	74.16	39.39	24.62	55.65	49.39	34.62
	Dec	32.39	39.50	20.77	21.59	54.50	30.77		Dec	74.16	39.50	20.77	55.65	49.50	30.77

Saudi Arabia (Jubail) RO		Inflow			Outflow			Saudi Arabia (Khafji) RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	8.15	39.44	17.45	4.07	84.24	18.45	2004	Jan	4.45	40.30	17.44	2.23	85.10	18.44
	Feb	8.15	39.32	17.07	4.07	84.12	18.07		Feb	4.45	40.12	17.27	2.23	84.92	18.27
	Mar	8.15	39.30	18.48	4.07	84.01	19.48		Mar	4.45	40.06	18.44	2.23	84.86	19.44
	Apr	8.15	39.12	22.24	4.07	83.92	23.24		Apr	4.45	40.20	22.57	2.23	85.00	23.57
	May	8.15	38.96	24.97	4.07	83.76	25.97		May	4.45	40.15	24.83	2.23	84.95	25.83
	Jun	8.15	38.93	27.01	4.07	83.73	28.01		Jun	4.45	40.29	27.00	2.23	85.09	28.00
	Jul	8.15	39.24	29.12	4.07	84.04	30.12		Jul	4.45	40.36	29.05	2.23	85.16	30.05
	Aug	8.15	39.53	29.75	4.07	84.33	30.75		Aug	4.45	40.53	29.84	2.23	85.33	30.84
	Sep	8.15	39.93	28.90	4.07	84.73	29.90		Sep	4.45	40.77	29.04	2.23	85.57	30.04
	Oct	8.15	39.65	28.12	4.07	84.45	29.12		Oct	4.45	40.75	28.26	2.23	85.55	29.26
	Nov	8.15	39.49	25.31	4.07	84.29	26.31		Nov	4.45	40.64	24.81	2.23	85.44	25.81
	Dec	8.15	39.84	20.04	4.07	84.64	21.04		Dec	4.45	40.35	20.33	2.23	85.15	21.33
2005	Jan	8.73	39.66	16.95	4.36	84.46	17.95	2005	Jan	4.77	40.48	17.17	2.39	85.28	18.17
	Feb	8.73	39.39	16.81	4.36	84.19	17.81		Feb	4.77	40.37	16.84	2.39	85.17	17.84
	Mar	8.73	39.17	18.74	4.36	83.97	19.74		Mar	4.77	40.13	19.12	2.39	84.93	20.12
	Apr	8.73	39.22	21.80	4.36	84.02	22.80		Apr	4.77	40.16	21.85	2.39	84.96	22.85
	May	8.73	39.17	25.05	4.36	83.97	26.05		May	4.77	40.20	25.33	2.39	85.00	26.33
	Jun	8.73	39.21	27.10	4.36	84.01	28.10		Jun	4.77	40.27	27.13	2.39	85.07	28.13
	Jul	8.73	39.65	28.86	4.36	84.45	29.86		Jul	4.77	40.49	28.49	2.39	85.29	29.49
	Aug	8.73	39.76	29.81	4.36	84.56	30.81		Aug	4.77	40.78	29.59	2.39	85.58	30.59
	Sep	8.73	39.94	29.49	4.36	84.74	30.49		Sep	4.77	40.94	29.62	2.39	85.74	30.62
	Oct	8.73	39.88	27.55	4.36	84.68	28.55		Oct	4.77	40.82	27.58	2.39	85.62	28.58
	Nov	8.73	39.65	24.86	4.36	84.45	25.86		Nov	4.77	40.67	24.78	2.39	85.47	25.78
	Dec	8.73	39.66	20.46	4.36	84.46	21.46		Dec	4.77	40.48	20.95	2.39	85.28	21.95

2006	Jan	9.31	39.56	17.20	4.65	84.36	18.20	2006	Jan	5.09	40.30	17.67	2.55	85.10	18.67
	Feb	9.31	39.26	16.75	4.65	84.06	17.75		Feb	5.09	40.20	16.84	2.55	85.00	17.84
	Mar	9.31	39.08	18.69	4.65	83.88	19.69		Mar	5.09	40.17	19.30	2.55	84.97	20.30
	Apr	9.31	38.93	20.80	4.65	83.73	21.80		Apr	5.09	40.08	21.44	2.55	84.88	22.44
	May	9.31	39.01	24.62	4.65	83.81	25.62		May	5.09	40.14	24.84	2.55	84.94	25.84
	Jun	9.31	39.26	27.04	4.65	84.06	28.04		Jun	5.09	40.30	26.82	2.55	85.10	27.82
	Jul	9.31	39.56	28.99	4.65	84.36	29.99		Jul	5.09	40.39	28.45	2.55	85.19	29.45
	Aug	9.31	39.73	29.54	4.65	84.53	30.54		Aug	5.09	40.80	29.33	2.55	85.60	30.33
	Sep	9.31	39.75	29.72	4.65	84.55	30.72		Sep	5.09	40.92	29.79	2.55	85.72	30.79
	Oct	9.31	39.84	27.97	4.65	84.64	28.97		Oct	5.09	40.86	27.88	2.55	85.66	28.88
	Nov	9.31	39.34	24.95	4.65	84.14	25.95		Nov	5.09	40.80	24.57	2.55	85.60	25.57
	Dec	9.31	39.54	21.00	4.65	84.34	22.00		Dec	5.09	40.57	20.80	2.55	85.37	21.80
2007	Jan	9.89	39.56	17.09	4.95	84.36	18.09	2007	Jan	5.41	40.48	17.36	2.70	85.28	18.36
	Feb	9.89	39.28	16.70	4.95	84.08	17.70		Feb	5.41	40.44	16.88	2.70	85.24	17.88
	Mar	9.89	39.26	18.45	4.95	84.06	19.45		Mar	5.41	40.34	18.67	2.70	85.14	19.67
	Apr	9.89	39.09	21.41	4.95	83.89	22.41		Apr	5.41	40.22	22.18	2.70	85.02	23.18
	May	9.89	39.05	24.60	4.95	83.85	25.60		May	5.41	40.21	25.14	2.70	85.01	26.14
	Jun	9.89	39.14	27.19	4.95	83.94	28.19		Jun	5.41	40.38	27.09	2.70	85.18	28.09
	Jul	9.89	39.59	29.17	4.95	84.39	30.17		Jul	5.41	40.56	29.04	2.70	85.36	30.04
	Aug	9.89	39.56	29.65	4.95	84.36	30.65		Aug	5.41	40.73	29.69	2.70	85.53	30.69
	Sep	9.89	39.82	29.27	4.95	84.62	30.27		Sep	5.41	40.83	29.54	2.70	85.63	30.54
	Oct	9.89	39.89	27.92	4.95	84.69	28.92		Oct	5.41	40.84	28.20	2.70	85.64	29.20
	Nov	9.89	39.75	25.50	4.95	84.55	26.50		Nov	5.41	40.78	25.15	2.70	85.58	26.15
	Dec	9.89	39.81	20.21	4.95	84.61	21.21		Dec	5.41	40.61	20.38	2.70	85.41	21.38
2008	Jan	10.47	39.32	17.64	5.24	84.12	18.64	2008	Jan	5.73	40.54	17.29	2.86	85.34	18.29
	Feb	10.47	39.18	16.66	5.24	83.98	17.66		Feb	5.73	40.43	16.77	2.86	85.23	17.77
	Mar	10.47	39.12	18.20	5.24	83.92	19.20		Mar	5.73	40.34	18.21	2.86	85.14	19.21
	Apr	10.47	38.84	21.07	5.24	83.64	22.07		Apr	5.73	40.37	21.75	2.86	85.17	22.75
	May	10.47	39.01	25.08	5.24	83.81	26.08		May	5.73	40.31	25.28	2.86	85.11	26.28
	Jun	10.47	39.02	26.96	5.24	83.82	27.96		Jun	5.73	40.44	27.05	2.86	85.24	28.05
	Jul	10.47	39.41	29.01	5.24	84.21	30.01		Jul	5.73	40.84	28.62	2.86	85.64	29.62
	Aug	10.47	39.56	29.46	5.24	84.36	30.46		Aug	5.73	40.87	29.11	2.86	85.67	30.11
	Sep	10.47	39.73	29.39	5.24	84.53	30.39		Sep	5.73	40.95	29.34	2.86	85.75	30.34
	Oct	10.47	39.52	27.40	5.24	84.32	28.40		Oct	5.73	40.87	27.38	2.86	85.67	28.38
	Nov	10.47	39.53	24.38	5.24	84.33	25.38		Nov	5.73	40.48	24.40	2.86	85.28	25.40
	Dec	10.47	39.44	20.68	5.24	84.24	21.68		Dec	5.73	40.63	20.41	2.86	85.43	21.41
2009	Jan	11.05	39.57	17.61	5.53	84.37	18.61	2009	Jan	6.05	40.56	17.62	3.02	85.36	18.62
	Feb	11.05	39.02	17.18	5.53	83.82	18.18		Feb	6.05	40.56	17.04	3.02	85.36	18.04
	Mar	11.05	38.86	18.32	5.53	83.66	19.32		Mar	6.05	40.37	18.40	3.02	85.17	19.40
	Apr	11.05	39.02	21.76	5.53	83.82	22.76		Apr	6.05	40.35	21.69	3.02	85.15	22.69
	May	11.05	39.00	24.73	5.53	83.80	25.73		May	6.05	40.25	24.68	3.02	85.05	25.68
	Jun	11.05	39.29	27.01	5.53	84.09	28.01		Jun	6.05	40.45	26.76	3.02	85.25	27.76
	Jul	11.05	39.31	28.95	5.53	84.11	29.95		Jul	6.05	40.54	28.57	3.02	85.34	29.57
	Aug	11.05	39.56	29.34	5.53	84.36	30.34		Aug	6.05	40.87	29.18	3.02	85.67	30.18
	Sep	11.05	39.50	28.52	5.53	84.30	29.52		Sep	6.05	40.90	28.45	3.02	85.70	29.45
	Oct	11.05	39.56	26.82	5.53	84.36	27.82		Oct	6.05	40.80	26.99	3.02	85.60	27.99
	Nov	11.05	39.31	24.78	5.53	84.11	25.78		Nov	6.05	40.88	24.68	3.02	85.68	25.63
	Dec	11.05	39.54	20.71	5.53	84.34	21.71		Dec	6.05	40.63	20.58	3.02	85.43	21.58
2010	Jan	11.64	39.23	18.31	5.82	84.03	19.31	2010	Jan	6.36	40.57	17.89	3.18	85.37	18.89
	Feb	11.64	39.12	17.13	5.82	83.92	18.13		Feb	6.36	40.47	17.25	3.18	85.27	18.25
	Mar	11.64	39.17	18.34	5.82	83.97	19.34		Mar	6.36	40.31	18.89	3.18	85.11	19.89
	Apr	11.64	39.32	21.60	5.82	84.12	22.60		Apr	6.36	40.34	21.71	3.18	85.14	22.71
	May	11.64	39.10	24.38	5.82	83.90	25.38		May	6.36	40.46	24.64	3.18	85.26	25.64
	Jun	11.64	39.19	27.05	5.82	83.99	28.05		Jun	6.36	40.58	26.98	3.18	85.38	27.98
	Jul	11.64	39.51	28.76	5.82	84.31	29.76		Jul	6.36	40.69	28.53	3.18	85.49	29.53
	Aug	11.64	39.56	29.37	5.82	84.36	30.37		Aug	6.36	40.95	29.50	3.18	85.75	30.50
	Sep	11.64	39.61	29.34	5.82	84.41	30.34		Sep	6.36	41.07	29.58	3.18	85.87	30.58
	Oct	11.64	39.59	27.96	5.82	84.39	28.96		Oct	6.36	41.02	28.26	3.18	85.82	29.26
	Nov	11.64	39.64	24.80	5.82	84.44	25.80		Nov	6.36	40.87	24.74	3.18	85.67	25.74
	Dec	11.64	39.73	20.73	5.82	84.53	21.73		Dec	6.36	40.74	20.85	3.18	85.54	21.85
2011	Jan	12.22	39.58	17.68	6.11	84.38	18.68	2011	Jan	6.68	40.78	17.67	3.34	85.58	18.67
	Feb	12.22	39.14	17.15	6.11	83.94	18.15		Feb	6.68	40.80	17.15	3.34	85.60	18.15
	Mar	12.22	38.99	18.35	6.11	83.79	19.35		Mar	6.68	40.62	18.88	3.34	85.42	19.88
	Apr	12.22	39.18	21.48	6.11	83.98	22.48		Apr	6.68	40.98	21.48	3.34	85.78	22.48

	May	12.22	39.03	24.63	6.11	83.83	25.63		May	6.68	40.81	25.02	3.34	85.61	26.02
	Jun	12.22	39.19	27.39	6.11	83.99	28.39		Jun	6.68	40.95	27.54	3.34	85.75	28.54
	Jul	12.22	39.49	28.70	6.11	84.29	29.70		Jul	6.68	41.27	28.21	3.34	86.07	29.21
	Aug	12.22	39.48	29.79	6.11	84.28	30.79		Aug	6.68	41.15	29.87	3.34	85.95	30.87
	Sep	12.22	39.89	28.93	6.11	84.69	29.93		Sep	6.68	41.18	29.16	3.34	85.98	30.16
	Oct	12.22	39.57	27.36	6.11	84.37	28.63		Oct	6.68	41.17	27.63	3.34	85.97	28.63
	Nov	12.22	39.28	23.95	6.11	84.08	24.95		Nov	6.68	41.15	24.06	3.34	85.95	25.06
2012	Dec	12.22	39.22	19.84	6.11	84.02	20.84	2012	Dec	6.68	40.98	20.00	3.34	85.78	21.00
	Jan	12.80	39.56	17.00	6.40	84.36	18.00		Jan	7.00	41.29	17.27	3.50	86.09	18.27
	Feb	12.80	39.08	16.82	6.40	83.88	17.82		Feb	7.00	41.23	16.68	3.50	86.03	17.68
	Mar	12.80	39.04	18.32	6.40	83.84	19.32		Mar	7.00	41.12	18.71	3.50	85.92	19.71
	Apr	12.80	39.10	21.45	6.40	83.90	22.45		Apr	7.00	41.21	21.70	3.50	86.01	22.70
	May	12.80	38.95	24.58	6.40	83.75	25.58		May	7.00	41.09	24.88	3.50	85.89	25.88
	Jun	12.80	39.14	26.41	6.40	83.94	27.14		Jun	7.00	41.01	26.35	3.50	85.81	27.35
	Jul	12.80	39.43	28.99	6.40	84.23	29.99		Jul	7.00	41.29	28.87	3.50	86.09	29.87
	Aug	12.80	39.62	29.79	6.40	84.42	30.79		Aug	7.00	41.50	29.75	3.50	86.30	30.75
	Sep	12.80	39.96	28.72	6.40	84.76	29.72		Sep	7.00	41.43	28.79	3.50	86.23	29.79
	Oct	12.80	39.60	27.58	6.40	84.40	28.58		Oct	7.00	41.33	27.82	3.50	86.13	28.82
	Nov	12.80	39.30	24.74	6.40	84.10	25.74		Nov	7.00	41.26	24.53	3.50	86.06	25.53
2013	Dec	12.80	39.27	20.48	6.40	84.07	21.48	2013	Dec	7.00	40.96	20.47	3.50	85.76	21.47
	Jan	13.38	39.43	17.65	6.69	84.23	18.65		Jan	7.32	40.92	17.81	3.66	85.72	18.81
	Feb	13.38	39.21	16.84	6.69	84.01	17.84		Feb	7.32	41.13	17.05	3.66	85.93	18.05
	Mar	13.38	39.13	18.34	6.69	83.93	19.34		Mar	7.32	40.91	18.69	3.66	85.71	19.69
	Apr	13.38	39.05	21.73	6.69	83.85	22.73		Apr	7.32	40.93	21.75	3.66	85.73	22.75
	May	13.38	39.01	24.81	6.69	83.81	25.81		May	7.32	40.87	24.85	3.66	85.67	25.85
	Jun	13.38	39.33	26.96	6.69	84.13	27.96		Jun	7.32	41.10	26.84	3.66	85.90	27.84
	Jul	13.38	39.40	29.06	6.69	84.20	30.06		Jul	7.32	41.64	29.03	3.66	86.44	30.03
	Aug	13.38	39.56	29.07	6.69	84.36	30.07		Aug	7.32	41.44	28.80	3.66	86.24	29.80
	Sep	13.38	39.67	29.02	6.69	84.47	30.02		Sep	7.32	41.54	29.18	3.66	86.34	30.18
	Oct	13.38	39.77	27.09	6.69	84.57	28.09		Oct	7.32	41.44	27.30	3.66	86.24	28.30
	Nov	13.38	39.52	23.85	6.69	84.32	24.85		Nov	7.32	41.53	24.00	3.66	86.33	25.00
2014	Dec	13.38	39.31	21.10	6.69	84.11	22.10	2014	Dec	7.32	41.43	20.97	3.66	86.23	21.97
	Jan	13.96	39.05	17.77	6.98	83.85	18.77		Jan	7.64	41.41	17.42	3.82	86.21	18.42
	Feb	13.96	38.80	17.19	6.98	83.60	18.19		Feb	7.64	41.13	17.12	3.82	85.93	18.12
	Mar	13.96	38.70	18.35	6.98	83.50	19.35		Mar	7.64	41.00	18.39	3.82	85.80	19.93
	Apr	13.96	38.71	20.99	6.98	83.51	21.99		Apr	7.64	40.87	21.41	3.82	85.67	22.41
	May	13.96	38.82	24.70	6.98	83.62	25.70		May	7.64	40.97	24.95	3.82	85.77	25.95
	Jun	13.96	39.02	27.04	6.98	83.82	28.04		Jun	7.64	41.12	27.19	3.82	85.92	28.19
	Jul	13.96	39.42	29.21	6.98	84.22	30.21		Jul	7.64	41.42	29.43	3.82	86.22	30.43
	Aug	13.96	39.87	29.30	6.98	84.67	30.30		Aug	7.64	41.52	29.44	3.82	86.32	30.44
	Sep	13.96	39.61	28.87	6.98	84.41	29.87		Sep	7.64	41.67	29.12	3.82	86.47	30.12
	Oct	13.96	39.95	27.55	6.98	84.75	28.55		Oct	7.64	41.49	27.71	3.82	86.29	28.71
	Nov	13.96	39.66	24.43	6.98	84.46	25.43		Nov	7.64	41.48	24.00	3.82	86.28	25.00
2015	Dec	13.96	39.31	20.68	6.98	84.11	21.68	2015	Dec	7.64	41.31	20.20	3.82	86.11	21.20
	Jan	14.55	39.55	17.70	7.27	84.35	18.70		Jan	7.95	41.47	17.46	3.98	86.27	18.46
	Feb	14.55	39.29	17.01	7.27	84.09	18.01		Feb	7.95	41.46	16.96	3.98	86.26	17.96
	Mar	14.55	38.70	18.35	7.27	83.50	19.35		Mar	7.95	41.00	18.93	3.98	85.80	19.93
	Apr	14.55	39.23	21.29	7.27	84.03	22.29		Apr	7.95	41.13	21.68	3.98	85.93	22.68
	May	14.55	39.59	24.86	7.27	84.39	25.86		May	7.95	41.72	24.91	3.98	86.52	25.91
	Jun	14.55	39.45	27.48	7.27	84.25	28.48		Jun	7.95	41.86	27.40	3.98	86.66	28.40
	Jul	14.55	39.54	28.90	7.27	84.34	29.90		Jul	7.95	41.85	28.64	3.98	86.65	29.64
	Aug	14.55	39.50	29.91	7.27	84.30	30.91		Aug	7.95	41.96	30.01	3.98	86.76	31.01
	Sep	14.55	39.90	29.28	7.27	84.70	30.28		Sep	7.95	41.77	29.43	3.98	86.57	30.43
	Oct	14.55	40.07	28.09	7.27	84.87	29.09		Oct	7.95	41.75	28.21	3.98	86.55	29.21
	Nov	14.55	39.39	24.62	7.27	84.19	25.62		Nov	7.95	41.63	24.30	4.98	86.43	25.30
	Dec	14.55	39.50	20.77	7.27	84.30	21.77		Dec	7.95	41.49	20.56	4.98	86.29	21.56

Saudi Arabia (Khafji) MSF		Inflow			Outflow			Bahrain (Sitra) MSF		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	23.05	40.30	17.44	17.28	50.30	27.44	2004	Jan	5.90	40.12	16.59	4.41	50.12	26.59
	Feb	23.05	40.12	17.27	17.28	50.12	27.27		Feb	5.90	39.97	17.10	4.41	49.97	27.10

	Mar	23.05	40.06	18.44	17.28	50.06	28.44		Mar	5.90	40.07	18.67	4.41	50.07	28.67
	Apr	23.05	40.20	22.57	17.28	50.20	32.57		Apr	5.90	40.20	23.00	4.41	50.20	33.00
	May	23.05	40.15	24.83	17.28	50.15	34.83		May	5.90	40.28	24.95	4.41	50.28	34.95
	Jun	23.05	40.29	27.00	17.28	50.29	37.00		Jun	5.90	40.39	26.95	4.41	50.39	36.95
	Jul	23.05	40.36	29.05	17.28	50.36	39.05		Jul	5.90	40.20	28.92	4.41	50.20	38.92
	Aug	23.05	40.53	29.84	17.28	50.53	39.84		Aug	5.90	40.56	29.22	4.41	50.56	39.22
	Sep	23.05	40.77	29.04	17.28	50.77	39.04		Sep	5.90	40.79	28.66	4.41	50.79	38.66
	Oct	23.05	40.75	28.26	17.28	50.75	38.26		Oct	5.90	41.05	27.78	4.41	51.05	37.78
	Nov	23.05	40.64	24.81	17.28	50.64	34.81		Nov	5.90	40.79	23.87	4.41	50.79	33.87
	Dec	23.05	40.35	20.33	17.28	50.35	30.33		Dec	5.90	40.22	18.66	4.41	50.22	28.66
2005	Jan	24.62	40.48	17.17	18.46	50.48	27.17	2005	Jan	5.95	40.03	16.47	4.45	50.03	26.47
	Feb	24.62	40.37	16.84	18.46	50.37	26.84		Feb	5.95	39.98	16.81	4.45	49.98	26.81
	Mar	24.62	40.13	19.12	18.46	50.13	29.12		Mar	5.95	40.01	19.35	4.45	50.01	29.35
	Apr	24.62	40.16	21.85	18.46	50.16	31.85		Apr	5.95	39.97	22.31	4.45	49.97	32.31
	May	24.62	40.20	25.33	18.46	50.20	35.33		May	5.95	40.26	25.48	4.45	50.26	35.48
	Jun	24.62	40.27	27.13	18.46	50.27	37.13		Jun	5.95	40.47	27.14	4.45	50.47	37.14
	Jul	24.62	40.49	28.49	18.46	50.49	38.49		Jul	5.95	40.44	27.83	4.45	50.44	37.83
	Aug	24.62	40.78	29.59	18.46	50.78	39.59		Aug	5.95	40.73	29.31	4.45	50.73	39.31
	Sep	24.62	40.94	29.62	18.46	50.94	39.62		Sep	5.95	41.01	29.21	4.45	51.01	39.21
	Oct	24.62	40.82	27.58	18.46	50.82	37.58		Oct	5.95	41.18	26.68	4.45	51.18	36.68
	Nov	24.62	40.67	24.78	18.46	50.67	34.78		Nov	5.95	40.68	23.75	4.45	50.68	33.75
	Dec	24.62	40.48	20.95	18.46	50.48	30.95		Dec	5.95	40.34	19.86	4.45	50.34	29.86
2006	Jan	26.19	40.30	17.67	19.64	50.30	27.67	2006	Jan	6.00	39.97	16.29	4.48	49.97	26.29
	Feb	26.19	40.20	16.84	19.64	50.20	26.84		Feb	6.00	40.17	16.57	4.48	50.17	26.57
	Mar	26.19	40.17	19.30	19.64	50.17	29.30		Mar	6.00	40.34	19.52	4.48	50.34	29.52
	Apr	26.19	40.08	21.44	19.64	50.08	31.44		Apr	6.00	40.29	22.24	4.48	50.29	32.24
	May	26.19	40.14	24.84	19.64	50.14	34.84		May	6.00	40.21	25.47	4.48	50.21	35.47
	Jun	26.19	40.30	26.82	19.64	50.30	36.82		Jun	6.00	40.47	26.33	4.48	50.47	36.33
	Jul	26.19	40.39	28.45	19.64	50.39	38.45		Jul	6.00	40.58	27.90	4.48	50.58	37.90
	Aug	26.19	40.80	29.33	19.64	50.80	39.33		Aug	6.00	40.50	28.74	4.48	50.50	38.74
	Sep	26.19	40.92	29.79	19.64	50.92	39.79		Sep	6.00	40.66	29.20	4.48	50.66	39.20
	Oct	26.19	40.86	27.88	19.64	50.86	37.88		Oct	6.00	41.16	26.81	4.48	51.16	36.81
	Nov	26.19	40.80	24.57	19.64	50.80	34.57		Nov	6.00	41.12	23.52	4.48	51.12	33.52
	Dec	26.19	40.57	20.80	19.64	50.57	30.80		Dec	6.00	40.74	19.69	4.48	50.74	29.69
2007	Jan	27.76	40.48	17.36	20.81	50.48	27.36	2007	Jan	6.05	40.06	16.09	4.52	50.06	26.09
	Feb	27.76	40.44	16.88	20.81	50.44	26.88		Feb	6.05	40.20	16.78	4.52	50.20	26.78
	Mar	27.76	40.34	18.67	20.81	50.34	28.67		Mar	6.05	40.34	19.06	4.52	50.34	29.06
	Apr	27.76	40.22	22.18	20.81	50.22	32.18		Apr	6.05	40.45	22.30	4.52	50.45	32.30
	May	27.76	40.21	25.14	20.81	50.21	35.14		May	6.05	40.47	25.59	4.52	50.47	35.59
	Jun	27.76	40.38	27.09	20.81	50.38	37.09		Jun	6.05	40.47	27.85	4.52	50.47	37.85
	Jul	27.76	40.56	29.04	20.81	50.56	39.04		Jul	6.05	40.64	29.37	4.52	50.64	39.37
	Aug	27.76	40.73	29.69	20.81	50.73	39.69		Aug	6.05	40.92	29.56	4.52	50.92	39.56
	Sep	27.76	40.83	29.54	20.81	50.83	39.54		Sep	6.05	40.82	29.16	4.52	50.82	39.16
	Oct	27.76	40.84	28.20	20.81	50.84	38.20		Oct	6.05	40.78	27.48	4.52	50.78	37.48
	Nov	27.76	40.78	25.15	20.81	50.78	35.15		Nov	6.05	41.01	24.15	4.52	51.01	34.15
	Dec	27.76	40.61	20.38	20.81	50.61	30.38		Dec	6.05	40.60	18.91	4.52	50.60	28.91
2008	Jan	29.33	40.54	17.29	21.99	50.54	27.29	2008	Jan	6.10	40.27	16.69	4.55	50.27	26.69
	Feb	29.33	40.43	16.77	21.99	50.43	26.77		Feb	6.10	40.12	16.90	4.55	50.12	26.90
	Mar	29.33	40.34	18.21	21.99	50.34	28.21		Mar	6.10	40.09	18.58	4.55	50.09	28.58
	Apr	29.33	40.37	21.75	21.99	50.37	31.75		Apr	6.10	40.17	22.66	4.55	50.17	32.66
	May	29.33	40.31	25.28	21.99	50.31	35.28		May	6.10	40.37	26.03	4.55	50.37	36.03
	Jun	29.33	40.44	27.05	21.99	50.44	37.05		Jun	6.10	40.40	27.76	4.55	50.40	37.76
	Jul	29.33	40.84	28.62	21.99	50.84	38.62		Jul	6.10	40.56	28.76	4.55	50.56	38.76
	Aug	29.33	40.87	29.11	21.99	50.87	39.11		Aug	6.10	40.95	28.61	4.55	50.95	38.61
	Sep	29.33	40.95	29.34	21.99	50.95	39.34		Sep	6.10	41.10	28.91	4.55	51.10	38.91
	Oct	29.33	40.87	27.38	21.99	50.87	37.38		Oct	6.10	41.11	26.31	4.55	51.11	36.31
	Nov	29.33	40.48	24.40	21.99	50.48	34.40		Nov	6.10	40.87	23.43	4.55	50.87	33.43
	Dec	29.33	40.63	20.41	21.99	50.63	30.41		Dec	6.10	40.69	19.48	4.55	50.69	29.48
2009	Jan	30.90	40.56	17.62	23.17	50.56	27.62	2009	Jan	6.15	40.23	16.97	4.59	50.23	26.97
	Feb	30.90	40.56	17.04	23.17	50.56	27.04		Feb	6.15	40.16	17.14	4.59	50.16	27.14
	Mar	30.90	40.37	18.40	23.17	50.37	28.40		Mar	6.15	40.12	18.77	4.59	50.12	28.77
	Apr	30.90	40.35	21.69	23.17	50.35	31.69		Apr	6.15	40.18	22.54	4.59	50.18	32.54
	May	30.90	40.25	24.68	23.17	50.25	34.68		May	6.15	40.27	25.64	4.59	50.27	35.64
	Jun	30.90	40.45	26.76	23.17	50.45	36.76		Jun	6.15	40.65	26.41	4.59	50.65	36.41

	Jul	30.90	40.54	28.57	23.17	50.54	38.57		Jul	6.15	40.70	28.36	4.59	50.70	38.36
	Aug	30.90	40.87	29.18	23.17	50.87	39.18		Aug	6.15	40.61	28.81	4.59	50.61	38.81
	Sep	30.90	40.90	28.45	23.17	50.90	38.45		Sep	6.15	41.00	27.75	4.59	51.00	37.75
	Oct	30.90	40.80	26.99	23.17	50.80	36.99		Oct	6.15	41.06	26.03	4.59	51.06	36.03
	Nov	30.90	40.88	24.68	23.17	50.88	34.63		Nov	6.15	40.94	23.70	4.59	50.94	33.70
2010	Dec	30.90	40.63	20.58	23.17	50.63	30.58	2010	Dec	6.15	40.86	19.19	4.59	50.86	29.19
	Jan	32.46	40.57	17.89	24.35	50.57	27.89		Jan	6.20	40.58	17.02	4.63	50.58	27.02
	Feb	32.46	40.47	17.25	24.35	50.47	27.25		Feb	6.20	40.26	17.09	4.63	50.26	27.09
	Mar	32.46	40.31	18.89	24.35	50.31	28.89		Mar	6.20	40.35	19.30	4.63	50.35	29.30
	Apr	32.46	40.34	21.71	24.35	50.34	31.71		Apr	6.20	40.15	22.02	4.63	50.15	32.02
	May	32.46	40.46	24.64	24.35	50.46	34.64		May	6.20	40.19	25.20	4.63	50.19	35.20
	Jun	32.46	40.58	26.98	24.35	50.58	36.98		Jun	6.20	40.74	27.01	4.63	50.74	37.01
	Jul	32.46	40.69	28.53	24.35	50.69	38.53		Jul	6.20	40.68	28.06	4.63	50.68	38.06
	Aug	32.46	40.95	29.50	24.35	50.95	39.50		Aug	6.20	40.74	29.11	4.63	50.74	39.11
	Sep	32.46	41.07	29.58	24.35	51.07	39.58		Sep	6.20	40.80	28.73	4.63	50.80	38.73
	Oct	32.46	41.02	28.26	24.35	51.02	38.26		Oct	6.20	41.06	27.58	4.63	51.06	37.58
	Nov	32.46	40.87	24.74	24.35	50.87	34.74		Nov	6.20	41.22	23.91	4.63	51.22	33.91
2011	Dec	32.46	40.74	20.85	24.35	50.74	30.85	2011	Dec	6.20	40.71	19.79	4.63	50.71	29.79
	Jan	34.03	40.78	17.67	25.52	50.78	27.67		Jan	6.25	40.26	17.01	4.66	50.26	27.01
	Feb	34.03	40.80	17.15	25.52	50.80	27.15		Feb	6.25	40.27	17.02	4.66	50.27	27.02
	Mar	34.03	40.62	18.88	25.52	50.62	28.88		Mar	6.25	40.36	19.21	4.66	50.36	29.21
	Apr	34.03	40.98	21.48	25.52	50.98	31.48		Apr	6.25	40.90	21.75	4.66	50.90	31.75
	May	34.03	40.81	25.02	25.52	50.81	35.02		May	6.25	40.73	25.26	4.66	50.73	35.26
	Jun	34.03	40.95	27.54	25.52	50.95	37.54		Jun	6.25	40.56	27.92	4.66	50.56	37.92
	Jul	34.03	41.27	28.21	25.52	51.27	38.21		Jul	6.25	41.00	27.99	4.66	51.00	37.99
	Aug	34.03	41.15	29.87	25.52	51.15	39.87		Aug	6.25	41.00	29.71	4.66	51.00	39.71
	Sep	34.03	41.18	29.16	25.52	51.18	39.16		Sep	6.25	40.82	28.72	4.66	50.82	38.72
	Oct	34.03	41.17	27.63	25.52	51.17	37.63		Oct	6.25	41.07	27.15	4.66	51.07	37.15
	Nov	34.03	41.15	24.06	25.52	51.15	34.06		Nov	6.25	41.02	23.36	4.66	51.02	33.36
2012	Dec	34.03	40.98	20.00	25.52	50.98	30.00	2012	Dec	6.25	40.63	18.85	4.66	50.63	28.85
	Jan	35.60	41.29	17.27	26.70	51.29	27.27		Jan	6.30	40.21	16.62	4.70	50.21	26.62
	Feb	35.60	41.23	16.68	26.70	51.23	26.68		Feb	6.30	40.11	16.67	4.70	50.11	26.67
	Mar	35.60	41.12	18.71	26.70	51.12	28.71		Mar	6.30	40.32	18.98	4.70	50.32	28.98
	Apr	35.60	41.21	21.70	26.70	51.21	31.70		Apr	6.30	40.64	22.00	4.70	50.64	32.00
	May	35.60	41.09	24.88	26.70	51.09	34.88		May	6.30	40.66	25.82	4.70	50.66	35.82
	Jun	35.60	41.01	26.35	26.70	51.01	36.35		Jun	6.30	40.87	25.86	4.70	50.87	35.86
	Jul	35.60	41.29	28.87	26.70	51.29	38.87		Jul	6.30	40.85	29.01	4.70	50.85	39.01
	Aug	35.60	41.50	29.75	26.70	51.50	39.75		Aug	6.30	40.96	29.69	4.70	50.96	39.69
	Sep	35.60	41.43	28.79	26.70	51.43	38.79		Sep	6.30	41.48	28.37	4.70	51.48	38.37
	Oct	35.60	41.33	27.82	26.70	51.33	37.82		Oct	6.30	41.44	27.29	4.70	51.44	37.29
	Nov	35.60	41.26	24.53	26.70	51.26	34.53		Nov	6.30	41.21	23.51	4.70	51.21	33.51
2013	Dec	35.60	40.96	20.47	26.70	50.96	30.47	2013	Dec	6.30	40.96	18.90	4.70	50.96	28.90
	Jan	37.17	40.92	17.81	27.88	50.92	27.81		Jan	6.35	40.24	17.45	4.74	50.24	27.45
	Feb	37.17	41.13	17.05	27.88	51.13	27.05		Feb	6.35	40.26	17.10	4.74	50.26	27.10
	Mar	37.17	40.91	18.69	27.88	50.91	28.69		Mar	6.35	40.49	19.14	4.74	50.49	29.14
	Apr	37.17	40.93	21.75	27.88	50.93	31.75		Apr	6.35	40.55	22.24	4.74	50.55	32.24
	May	37.17	40.87	24.85	27.88	50.87	34.85		May	6.35	40.43	25.65	4.74	50.43	35.65
	Jun	37.17	41.10	26.84	27.88	51.10	36.84		Jun	6.35	41.07	26.42	4.74	51.07	36.42
	Jul	37.17	41.64	29.03	27.88	51.64	39.03		Jul	6.35	41.14	29.18	4.74	51.14	39.18
	Aug	37.17	41.44	28.80	27.88	51.44	38.80		Aug	6.35	40.36	28.27	4.74	50.36	38.27
	Sep	37.17	41.54	29.18	27.88	51.54	39.18		Sep	6.35	41.31	28.72	4.74	51.31	38.72
	Oct	37.17	41.44	27.30	27.88	51.44	37.30		Oct	6.35	41.63	26.33	4.74	51.63	36.33
	Nov	37.17	41.53	24.00	27.88	51.53	34.00		Nov	6.35	41.26	23.02	4.74	51.26	33.02
2014	Dec	37.17	41.43	20.97	27.88	51.43	30.97	2014	Dec	6.35	40.98	20.08	4.74	50.98	30.08
	Jan	38.74	41.41	17.42	29.05	51.41	27.42		Jan	6.40	40.42	16.89	4.77	50.42	26.89
	Feb	38.74	41.13	17.12	29.05	51.13	27.12		Feb	6.40	40.60	17.07	4.77	50.60	27.07
	Mar	38.74	41.00	18.39	29.05	51.00	28.93		Mar	6.40	40.36	19.36	4.77	50.36	29.36
	Apr	38.74	40.87	21.41	29.05	50.87	31.41		Apr	6.40	40.52	22.09	4.77	50.52	32.09
	May	38.74	40.97	24.95	29.05	50.97	34.95		May	6.40	40.46	25.27	4.77	50.46	35.27
	Jun	38.74	41.12	27.19	29.05	51.12	37.19		Jun	6.40	40.78	27.43	4.77	50.78	37.43
	Jul	38.74	41.42	29.43	29.05	51.42	39.43		Jul	6.40	41.05	29.51	4.77	51.05	39.51
	Aug	38.74	41.52	29.44	29.05	51.52	39.44		Aug	6.40	41.12	28.97	4.77	51.12	38.97
	Sep	38.74	41.67	29.12	29.05	51.67	39.12		Sep	6.40	41.11	28.80	4.77	51.10	38.80
	Oct	38.74	41.49	27.71	29.05	51.49	37.71		Oct	6.40	41.19	27.22	4.77	51.19	37.22

	Nov	38.74	41.48	24.00	29.05	51.48	34.00		Nov	6.40	41.24	23.11	4.77	51.24	33.11
	Dec	38.74	41.31	20.20	29.05	51.31	30.20		Dec	6.40	41.20	18.83	4.77	51.20	28.83
2015	Jan	40.30	41.47	17.46	30.23	51.47	27.46	2015	Jan	6.45	40.97	16.53	4.81	50.97	26.53
	Feb	40.30	41.46	16.96	30.23	51.46	26.96		Feb	6.45	40.92	16.87	4.81	50.92	26.87
	Mar	40.30	41.00	18.93	30.23	51.00	28.93		Mar	6.45	40.36	19.36	4.81	50.36	29.36
	Apr	40.30	41.13	21.68	30.23	51.13	31.68		Apr	6.45	41.09	22.13	4.81	51.09	32.13
	May	40.30	41.72	24.91	30.23	51.72	34.91		May	6.45	41.16	24.96	4.81	51.16	34.96
	Jun	40.30	41.86	27.40	30.23	51.86	37.40		Jun	6.45	41.40	27.45	4.81	51.40	37.45
	Jul	40.30	41.85	28.64	30.23	51.85	38.64		Jul	6.45	41.58	28.46	4.81	51.58	38.46
	Aug	40.30	41.96	30.01	30.23	51.96	40.01		Aug	6.45	41.18	30.07	4.81	51.18	40.07
	Sep	40.30	41.77	29.43	30.23	51.77	39.43		Sep	6.45	41.31	28.84	4.81	51.31	38.84
	Oct	40.30	41.75	28.21	30.23	51.75	38.21		Oct	6.45	41.32	27.54	4.81	51.32	37.54
	Nov	40.30	41.63	24.30	30.23	51.63	34.30		Nov	6.45	41.60	23.31	4.81	51.60	33.31
	Dec	40.30	41.49	20.56	30.23	51.49	30.56		Dec	6.45	41.12	19.80	4.81	51.12	29.80

Bahrain (Sitra) RO		Inflow			Outflow			Bahrain (Ras Jarjoor) RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	1.02	40.12	16.59	0.51	84.92	17.59	2004	Jan	1.80	40.12	16.59	0.90	84.92	17.59
	Feb	1.02	39.97	17.10	0.51	84.77	18.10		Feb	1.80	39.97	17.10	0.90	84.77	18.10
	Mar	1.02	40.07	18.67	0.51	84.87	19.67		Mar	1.80	40.07	18.67	0.90	84.87	19.67
	Apr	1.02	40.20	23.00	0.51	85.00	24.00		Apr	1.80	40.20	23.00	0.90	85.00	24.00
	May	1.02	40.28	24.95	0.51	85.08	25.95		May	1.80	40.28	24.95	0.90	85.08	25.95
	Jun	1.02	40.39	26.95	0.51	85.19	27.95		Jun	1.80	40.39	26.95	0.90	85.19	27.95
	Jul	1.02	40.20	28.92	0.51	85.00	29.92		Jul	1.80	40.20	28.92	0.90	85.00	29.92
	Aug	1.02	40.56	29.22	0.51	85.36	30.22		Aug	1.80	40.56	29.22	0.90	85.36	30.22
	Sep	1.02	40.79	28.66	0.51	85.59	29.66		Sep	1.80	40.79	28.66	0.90	85.59	29.66
	Oct	1.02	41.05	27.78	0.51	85.85	28.78		Oct	1.80	41.05	27.78	0.90	85.85	28.78
	Nov	1.02	40.79	23.87	0.51	85.59	24.87		Nov	1.80	40.79	23.87	0.90	85.59	24.87
	Dec	1.02	40.22	18.66	0.51	85.02	19.66		Dec	1.80	40.22	18.66	0.90	85.02	19.66
2005	Jan	1.09	40.03	16.47	0.55	84.83	17.47	2005	Jan	1.80	40.03	16.47	0.90	84.83	17.47
	Feb	1.09	39.98	16.81	0.55	84.78	17.81		Feb	1.80	39.98	16.81	0.90	84.78	17.81
	Mar	1.09	40.01	19.35	0.55	84.81	20.35		Mar	1.80	40.01	19.35	0.90	84.81	20.35
	Apr	1.09	39.97	22.31	0.55	84.77	23.31		Apr	1.80	39.97	22.31	0.90	84.77	23.31
	May	1.09	40.26	25.48	0.55	84.06	26.48		May	1.80	40.26	25.48	0.90	84.06	26.48
	Jun	1.09	40.47	27.14	0.55	85.27	28.14		Jun	1.80	40.47	27.14	0.90	85.27	28.14
	Jul	1.09	40.44	27.83	0.55	85.24	28.83		Jul	1.80	40.44	27.83	0.90	85.24	28.83
	Aug	1.09	40.73	29.31	0.55	85.53	30.31		Aug	1.80	40.73	29.31	0.90	85.53	30.31
	Sep	1.09	41.01	29.21	0.55	85.81	30.21		Sep	1.80	41.01	29.21	0.90	85.81	30.21
	Oct	1.09	41.18	26.68	0.55	85.98	27.68		Oct	1.80	41.18	26.68	0.90	85.98	27.68
	Nov	1.09	40.68	23.75	0.55	85.48	24.75		Nov	1.80	40.68	23.75	0.90	85.48	24.75
	Dec	1.09	40.34	19.86	0.55	85.14	20.86		Dec	1.80	40.34	19.86	0.90	85.14	20.86
2006	Jan	1.16	39.97	16.29	0.58	84.77	17.29	2006	Jan	1.80	39.97	16.29	0.90	84.77	17.29
	Feb	1.16	40.17	16.57	0.58	84.97	17.57		Feb	1.80	40.17	16.57	0.90	84.97	17.57
	Mar	1.16	40.34	19.52	0.58	85.14	20.52		Mar	1.80	40.34	19.52	0.90	85.14	20.52
	Apr	1.16	40.29	22.24	0.58	85.09	23.24		Apr	1.80	40.29	22.24	0.90	85.09	23.24
	May	1.16	40.21	25.47	0.58	85.01	26.47		May	1.80	40.21	25.47	0.90	85.01	26.47
	Jun	1.16	40.47	26.33	0.58	85.27	27.33		Jun	1.80	40.47	26.33	0.90	85.27	27.33
	Jul	1.16	40.58	27.90	0.58	85.38	28.90		Jul	1.80	40.58	27.90	0.90	85.38	28.90
	Aug	1.16	40.50	28.74	0.58	85.30	29.74		Aug	1.80	40.50	28.74	0.90	85.30	29.74
	Sep	1.16	40.66	29.20	0.58	85.46	30.20		Sep	1.80	40.66	29.20	0.90	85.46	30.20
	Oct	1.16	41.16	26.81	0.58	85.96	27.81		Oct	1.80	41.16	26.81	0.90	85.96	27.81
	Nov	1.16	41.12	23.52	0.58	85.92	24.52		Nov	1.80	41.12	23.52	0.90	85.92	24.52
	Dec	1.16	40.74	19.69	0.58	85.54	20.69		Dec	1.80	40.74	19.69	0.90	85.54	20.69
2007	Jan	1.24	40.06	16.09	0.62	84.86	17.09	2007	Jan	1.80	40.06	16.09	0.90	84.86	17.09
	Feb	1.24	40.20	16.78	0.62	85.00	17.78		Feb	1.80	40.20	16.78	0.90	85.00	17.78
	Mar	1.24	40.34	19.06	0.62	85.14	20.06		Mar	1.80	40.34	19.06	0.90	85.14	20.06
	Apr	1.24	40.45	22.30	0.62	85.25	23.30		Apr	1.80	40.45	22.30	0.90	85.25	23.30
	May	1.24	40.47	25.59	0.62	85.27	26.59		May	1.80	40.47	25.59	0.90	85.27	26.59
	Jun	1.24	40.47	27.85	0.62	85.27	28.85		Jun	1.80	40.47	27.85	0.90	85.27	28.85
	Jul	1.24	40.64	29.37	0.62	85.44	30.37		Jul	1.80	40.64	29.37	0.90	85.44	30.37
	Aug	1.24	40.92	29.56	0.62	85.72	30.56		Aug	1.80	40.92	29.56	0.90	85.72	30.56

	Sep	1.24	40.82	29.16	0.62	85.62	30.16		Sep	1.80	40.82	29.16	0.90	85.62	30.16
	Oct	1.24	40.78	27.48	0.62	85.58	28.48		Oct	1.80	40.78	27.48	0.90	85.58	28.48
	Nov	1.24	41.01	24.15	0.62	85.81	25.15		Nov	1.80	41.01	24.15	0.90	85.81	25.15
	Dec	1.24	40.60	18.91	0.62	85.40	19.91		Dec	1.80	40.60	18.91	0.90	85.40	19.91
2008	Jan	1.31	40.27	16.69	0.65	85.07	17.69	2008	Jan	1.80	40.27	16.69	0.90	85.07	17.69
	Feb	1.31	40.12	16.90	0.65	84.92	17.90		Feb	1.80	40.12	16.90	0.90	84.92	17.90
	Mar	1.31	40.09	18.58	0.65	84.89	19.58		Mar	1.80	40.09	18.58	0.90	84.89	19.58
	Apr	1.31	40.17	22.66	0.65	84.97	23.66		Apr	1.80	40.17	22.66	0.90	84.97	23.66
	May	1.31	40.37	26.03	0.65	85.17	27.03		May	1.80	40.37	26.03	0.90	85.17	27.03
	Jun	1.31	40.40	27.76	0.65	85.20	28.76		Jun	1.80	40.40	27.76	0.90	85.20	28.76
	Jul	1.31	40.56	28.76	0.65	85.36	29.76		Jul	1.80	40.56	28.76	0.90	85.36	29.76
	Aug	1.31	40.95	28.61	0.65	85.75	29.61		Aug	1.80	40.95	28.61	0.90	85.75	29.61
	Sep	1.31	41.10	28.91	0.65	85.90	29.91		Sep	1.80	41.10	28.91	0.90	85.90	29.91
	Oct	1.31	41.11	26.31	0.65	85.91	27.31		Oct	1.80	41.11	26.31	0.90	85.91	27.31
	Nov	1.31	40.87	23.43	0.65	85.67	24.43		Nov	1.80	40.87	23.43	0.90	85.67	24.43
	Dec	1.31	40.69	19.48	0.65	85.49	20.48		Dec	1.80	40.69	19.48	0.90	85.49	20.48
2009	Jan	1.38	40.23	16.97	0.69	85.03	17.97	2009	Jan	1.80	40.23	16.97	0.90	85.03	17.97
	Feb	1.38	40.16	17.14	0.69	84.96	18.14		Feb	1.80	40.16	17.14	0.90	84.96	18.14
	Mar	1.38	40.12	18.77	0.69	84.92	19.77		Mar	1.80	40.12	18.77	0.90	84.92	19.77
	Apr	1.38	40.18	22.54	0.69	84.98	23.54		Apr	1.80	40.18	22.54	0.90	84.98	23.54
	May	1.38	40.27	25.64	0.69	85.07	26.64		May	1.80	40.27	25.64	0.90	85.07	26.64
	Jun	1.38	40.65	26.41	0.69	85.45	27.41		Jun	1.80	40.65	26.41	0.90	85.45	27.41
	Jul	1.38	40.70	28.36	0.69	85.50	29.36		Jul	1.80	40.70	28.36	0.90	85.50	29.36
	Aug	1.38	40.61	28.81	0.69	85.41	29.81		Aug	1.80	40.61	28.81	0.90	85.41	29.81
	Sep	1.38	41.00	27.75	0.69	85.80	28.75		Sep	1.80	41.00	27.75	0.90	85.80	28.75
	Oct	1.38	41.06	26.03	0.69	85.86	27.03		Oct	1.80	41.06	26.03	0.90	85.86	27.03
	Nov	1.38	40.94	23.70	0.69	85.74	24.70		Nov	1.80	40.94	23.70	0.90	85.74	24.70
	Dec	1.38	40.86	19.19	0.69	85.66	20.19		Dec	1.80	40.86	19.19	0.90	85.66	20.19
2010	Jan	1.45	40.58	17.02	0.73	85.38	18.02	2010	Jan	1.80	40.58	17.02	0.90	85.38	18.02
	Feb	1.45	40.26	17.09	0.73	85.06	18.09		Feb	1.80	40.26	17.09	0.90	85.06	18.09
	Mar	1.45	40.35	19.30	0.73	85.15	20.30		Mar	1.80	40.35	19.30	0.90	85.15	20.30
	Apr	1.45	40.15	22.02	0.73	84.95	23.02		Apr	1.80	40.15	22.02	0.90	84.95	23.02
	May	1.45	40.19	25.20	0.73	84.99	26.20		May	1.80	40.19	25.20	0.90	84.99	26.20
	Jun	1.45	40.74	27.01	0.73	85.54	28.01		Jun	1.80	40.74	27.01	0.90	85.54	28.01
	Jul	1.45	40.68	28.06	0.73	85.48	29.06		Jul	1.80	40.68	28.06	0.90	85.48	29.06
	Aug	1.45	40.74	29.11	0.73	85.54	30.11		Aug	1.80	40.74	29.11	0.90	85.54	30.11
	Sep	1.45	40.80	28.73	0.73	85.60	29.73		Sep	1.80	40.80	28.73	0.90	85.60	29.73
	Oct	1.45	41.06	27.58	0.73	85.86	28.58		Oct	1.80	41.06	27.58	0.90	85.86	28.58
	Nov	1.45	41.22	23.91	0.73	86.02	24.91		Nov	1.80	41.22	23.91	0.90	86.02	24.91
	Dec	1.45	40.71	19.79	0.73	85.51	20.79		Dec	1.80	40.71	19.79	0.90	85.51	20.79
2011	Jan	1.53	40.26	17.01	0.76	85.06	18.01	2011	Jan	1.80	40.26	17.01	0.90	85.06	18.01
	Feb	1.53	40.27	17.02	0.76	85.07	18.02		Feb	1.80	40.27	17.02	0.90	85.07	18.02
	Mar	1.53	40.36	19.21	0.76	85.16	20.21		Mar	1.80	40.36	19.21	0.90	85.16	20.21
	Apr	1.53	40.90	21.75	0.76	85.70	22.75		Apr	1.80	40.90	21.75	0.90	85.70	22.75
	May	1.53	40.73	25.26	0.76	85.53	26.26		May	1.80	40.73	25.26	0.90	85.53	26.26
	Jun	1.53	40.56	27.92	0.76	85.36	28.92		Jun	1.80	40.56	27.92	0.90	85.36	28.92
	Jul	1.53	41.00	27.99	0.76	85.80	28.99		Jul	1.80	41.00	27.99	0.90	85.80	28.99
	Aug	1.53	41.00	29.71	0.76	85.80	30.71		Aug	1.80	41.00	29.71	0.90	85.80	30.71
	Sep	1.53	40.82	28.72	0.76	85.62	29.72		Sep	1.80	40.82	28.72	0.90	85.62	29.72
	Oct	1.53	41.07	27.15	0.76	85.87	28.15		Oct	1.80	41.07	27.15	0.90	85.87	28.15
	Nov	1.53	41.02	23.36	0.76	85.82	24.36		Nov	1.80	41.02	23.36	0.90	85.82	24.36
	Dec	1.53	40.63	18.85	0.76	85.43	19.85		Dec	1.80	40.63	18.85	0.90	85.43	19.85
2012	Jan	1.60	40.21	16.62	0.80	85.01	17.62	2012	Jan	1.80	40.21	16.62	0.90	85.01	17.62
	Feb	1.60	40.11	16.67	0.80	84.91	17.67		Feb	1.80	40.11	16.67	0.90	84.91	17.67
	Mar	1.60	40.32	18.98	0.80	85.12	19.98		Mar	1.80	40.32	18.98	0.90	85.12	19.98
	Apr	1.60	40.64	22.00	0.80	85.44	23.00		Apr	1.80	40.64	22.00	0.90	85.44	23.00
	May	1.60	40.66	25.82	0.80	85.46	26.82		May	1.80	40.66	25.82	0.90	85.46	26.82
	Jun	1.60	40.87	25.86	0.80	85.67	26.86		Jun	1.80	40.87	25.86	0.90	85.67	26.86
	Jul	1.60	40.85	29.01	0.80	85.65	30.01		Jul	1.80	40.85	29.01	0.90	85.65	30.01
	Aug	1.60	40.96	29.69	0.80	85.76	30.69		Aug	1.80	40.96	29.69	0.90	85.76	30.69
	Sep	1.60	41.48	28.37	0.80	86.28	29.37		Sep	1.80	41.48	28.37	0.90	86.28	29.37
	Oct	1.60	41.44	27.29	0.80	86.24	28.29		Oct	1.80	41.44	27.29	0.90	86.24	28.29
	Nov	1.60	41.21	23.51	0.80	86.01	24.51		Nov	1.80	41.21	23.51	0.90	86.01	24.51
	Dec	1.60	40.96	18.90	0.80	85.76	19.90		Dec	1.80	40.96	18.90	0.90	85.76	19.90

2013	Jan	1.67	40.24	17.45	0.84	85.04	18.45	2013	Jan	1.80	40.24	17.45	0.90	85.04	18.45
	Feb	1.67	40.26	17.10	0.84	85.06	18.10		Feb	1.80	40.26	17.10	0.90	85.06	18.10
	Mar	1.67	40.49	19.14	0.84	85.29	20.14		Mar	1.80	40.49	19.14	0.90	85.29	20.14
	Apr	1.67	40.55	22.24	0.84	85.35	23.24		Apr	1.80	40.55	22.24	0.90	85.35	23.24
	May	1.67	40.43	25.65	0.84	85.23	26.65		May	1.80	40.43	25.65	0.90	85.23	26.65
	Jun	1.67	41.07	26.42	0.84	85.87	27.42		Jun	1.80	41.07	26.42	0.90	85.87	27.42
	Jul	1.67	41.14	29.18	0.84	85.94	30.18		Jul	1.80	41.14	29.18	0.90	85.94	30.18
	Aug	1.67	40.36	28.27	0.84	85.16	29.27		Aug	1.80	40.36	28.27	0.90	85.16	29.27
	Sep	1.67	41.31	28.72	0.84	86.11	29.72		Sep	1.80	41.31	28.72	0.90	86.11	29.72
	Oct	1.67	41.63	26.33	0.84	86.43	27.33		Oct	1.80	41.63	26.33	0.90	86.43	27.33
	Nov	1.67	41.26	23.02	0.84	86.06	24.02		Nov	1.80	41.26	23.02	0.90	86.06	24.02
	Dec	1.67	40.98	20.08	0.84	85.78	21.08		Dec	1.80	40.98	20.08	0.90	85.78	21.08
2014	Jan	1.75	40.42	16.89	0.87	85.22	17.89	2014	Jan	1.80	40.42	16.89	0.90	85.22	17.89
	Feb	1.75	40.60	17.07	0.87	85.40	18.07		Feb	1.80	40.60	17.07	0.90	85.40	18.07
	Mar	1.75	40.36	19.36	0.87	85.16	20.36		Mar	1.80	40.36	19.36	0.90	85.16	20.36
	Apr	1.75	40.52	22.09	0.87	85.32	23.09		Apr	1.80	40.52	22.09	0.90	85.32	23.09
	May	1.75	40.46	25.27	0.87	85.26	26.27		May	1.80	40.46	25.27	0.90	85.26	26.27
	Jun	1.75	40.78	27.43	0.87	85.58	28.43		Jun	1.80	40.78	27.43	0.90	85.58	28.43
	Jul	1.75	41.05	29.51	0.87	85.85	30.51		Jul	1.80	41.05	29.51	0.90	85.85	30.51
	Aug	1.75	41.12	28.97	0.87	85.92	29.97		Aug	1.80	41.12	28.97	0.90	85.92	29.97
	Sep	1.75	41.11	28.80	0.87	85.90	29.80		Sep	1.80	41.11	28.80	0.90	85.90	29.80
	Oct	1.75	41.19	27.22	0.87	85.99	28.22		Oct	1.80	41.19	27.22	0.90	85.99	28.22
	Nov	1.75	41.24	23.11	0.87	86.04	24.11		Nov	1.80	41.24	23.11	0.90	86.04	24.11
	Dec	1.75	41.20	18.83	0.87	86.00	19.83		Dec	1.80	41.20	18.83	0.90	86.00	19.83
2015	Jan	1.82	40.97	16.53	0.91	85.77	17.53	2015	Jan	1.80	40.97	16.53	0.90	85.77	17.53
	Feb	1.82	40.92	16.87	0.91	85.72	17.87		Feb	1.80	40.92	16.87	0.90	85.72	17.87
	Mar	1.82	40.36	19.36	0.91	85.16	20.36		Mar	1.80	40.36	19.36	0.90	85.16	20.36
	Apr	1.82	41.09	22.13	0.91	85.89	23.13		Apr	1.80	41.09	22.13	0.90	85.89	23.13
	May	1.82	41.16	24.96	0.91	85.96	25.96		May	1.80	41.16	24.96	0.90	85.96	25.96
	Jun	1.82	41.40	27.45	0.91	86.20	28.45		Jun	1.80	41.40	27.45	0.90	86.20	28.45
	Jul	1.82	41.58	28.46	0.91	86.38	29.46		Jul	1.80	41.58	28.46	0.90	86.38	29.46
	Aug	1.82	41.18	30.07	0.91	85.98	31.07		Aug	1.80	41.18	30.07	0.90	85.98	31.07
	Sep	1.82	41.31	28.84	0.91	86.11	29.84		Sep	1.80	41.31	28.84	0.90	86.11	29.84
	Oct	1.82	41.32	27.54	0.91	86.12	28.54		Oct	1.80	41.32	27.54	0.90	86.12	28.54
	Nov	1.82	41.60	23.31	0.91	86.40	24.31		Nov	1.80	41.60	23.31	0.90	86.40	24.31
	Dec	1.82	41.12	19.80	0.91	85.92	20.80		Dec	1.80	41.12	19.80	0.90	85.92	20.80

Bahrain (Alhidd) MED		Inflow			Outflow			Bahrain (Alhidd) RO	Inflow			Outflow			
		F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)		F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)	
2004	Jan	6.05	40.12	16.59	4.01	55.12	26.59	2004	Jan	3.31	40.12	16.59	1.65	84.92	17.59
	Feb	6.05	39.97	17.10	4.01	54.97	27.10		Feb	3.31	39.97	17.10	1.65	84.77	18.10
	Mar	6.05	40.07	18.67	4.01	55.07	28.67		Mar	3.31	40.07	18.67	1.65	84.87	19.67
	Apr	6.05	40.20	23.00	4.01	55.20	33.00		Apr	3.31	40.20	23.00	1.65	85.00	24.00
	May	6.05	40.28	24.95	4.01	55.28	34.95		May	3.31	40.28	24.95	1.65	85.08	25.95
	Jun	6.05	40.39	26.95	4.01	55.39	36.95		Jun	3.31	40.39	26.95	1.65	85.19	27.95
	Jul	6.05	40.20	28.92	4.01	55.20	38.92		Jul	3.31	40.20	28.92	1.65	85.00	29.92
	Aug	6.05	40.56	29.22	4.01	55.56	39.22		Aug	3.31	40.56	29.22	1.65	85.36	30.22
	Sep	6.05	40.79	28.66	4.01	55.79	38.66		Sep	3.31	40.79	28.66	1.65	85.59	29.66
	Oct	6.05	41.05	27.78	4.01	56.05	37.78		Oct	3.31	41.05	27.78	1.65	85.85	28.78
	Nov	6.05	40.79	23.87	4.01	55.79	33.87		Nov	3.31	40.79	23.87	1.65	85.59	24.87
	Dec	6.05	40.22	18.66	4.01	55.22	28.66		Dec	3.31	40.22	18.66	1.65	85.02	19.66
2005	Jan	6.48	40.03	16.47	4.30	55.03	26.47	2005	Jan	3.55	40.03	16.47	1.77	84.83	17.47
	Feb	6.48	39.98	16.81	4.30	54.98	26.81		Feb	3.55	39.98	16.81	1.77	84.78	17.81
	Mar	6.48	40.01	19.35	4.30	55.01	29.35		Mar	3.55	40.01	19.35	1.77	84.81	20.35
	Apr	6.48	39.97	22.31	4.30	54.97	32.31		Apr	3.55	39.97	22.31	1.77	84.77	23.31
	May	6.48	40.26	25.48	4.30	55.26	35.48		May	3.55	40.26	25.48	1.77	84.06	26.48
	Jun	6.48	40.47	27.14	4.30	55.47	37.14		Jun	3.55	40.47	27.14	1.77	85.27	28.14
	Jul	6.48	40.44	27.83	4.30	55.44	37.83		Jul	3.55	40.44	27.83	1.77	85.24	28.83
	Aug	6.48	40.73	29.31	4.30	55.73	39.31		Aug	3.55	40.73	29.31	1.77	85.53	30.31
	Sep	6.48	41.01	29.21	4.30	56.01	39.21		Sep	3.55	41.01	29.21	1.77	85.81	30.21
	Oct	6.48	41.18	26.68	4.30	56.18	36.68		Oct	3.55	41.18	26.68	1.77	85.98	27.68

	Nov	6.48	40.68	23.75	4.30	55.68	33.75		Nov	3.55	40.68	23.75	1.77	85.48	24.75
	Dec	6.48	40.34	19.86	4.30	55.34	29.86		Dec	3.55	40.34	19.86	1.77	85.14	20.86
2006	Jan	6.91	39.97	16.29	4.58	54.97	26.29	2006	Jan	3.78	39.97	16.29	1.89	84.77	17.29
	Feb	6.91	40.17	16.57	4.58	55.17	26.57		Feb	3.78	40.17	16.57	1.89	84.97	17.57
	Mar	6.91	40.34	19.52	4.58	55.34	29.52		Mar	3.78	40.34	19.52	1.89	85.14	20.52
	Apr	6.91	40.29	22.24	4.58	55.29	32.24		Apr	3.78	40.29	22.24	1.89	85.09	23.24
	May	6.91	40.21	25.47	4.58	55.21	35.47		May	3.78	40.21	25.47	1.89	85.01	26.47
	Jun	6.91	40.47	26.33	4.58	55.47	36.33		Jun	3.78	40.47	26.33	1.89	85.27	27.33
	Jul	6.91	40.58	27.90	4.58	55.58	37.90		Jul	3.78	40.58	27.90	1.89	85.38	28.90
	Aug	6.91	40.50	28.74	4.58	55.50	38.74		Aug	3.78	40.50	28.74	1.89	85.30	29.74
	Sep	6.91	40.66	29.20	4.58	55.66	39.20		Sep	3.78	40.66	29.20	1.89	85.46	30.20
	Oct	6.91	41.16	26.81	4.58	56.16	36.81		Oct	3.78	41.16	26.81	1.89	85.96	27.81
	Nov	6.91	41.12	23.52	4.58	56.12	33.52		Nov	3.78	41.12	23.52	1.89	85.92	24.52
	Dec	6.91	40.74	19.69	4.58	55.74	29.69		Dec	3.78	40.74	19.69	1.89	85.54	20.69
2007	Jan	7.34	40.06	16.09	4.87	55.06	26.09	2007	Jan	4.02	40.06	16.09	2.01	84.86	17.09
	Feb	7.34	40.20	16.78	4.87	55.20	26.78		Feb	4.02	40.20	16.78	2.01	85.00	17.78
	Mar	7.34	40.34	19.06	4.87	55.34	29.06		Mar	4.02	40.34	19.06	2.01	85.14	20.06
	Apr	7.34	40.45	22.30	4.87	55.45	32.30		Apr	4.02	40.45	22.30	2.01	85.25	23.30
	May	7.34	40.47	25.59	4.87	55.47	35.59		May	4.02	40.47	25.59	2.01	85.27	26.59
	Jun	7.34	40.47	27.85	4.87	55.47	37.85		Jun	4.02	40.47	27.85	2.01	85.27	28.85
	Jul	7.34	40.64	29.37	4.87	55.64	39.37		Jul	4.02	40.64	29.37	2.01	85.44	30.37
	Aug	7.34	40.92	29.56	4.87	55.92	39.56		Aug	4.02	40.92	29.56	2.01	85.72	30.56
	Sep	7.34	40.82	29.16	4.87	55.82	39.16		Sep	4.02	40.82	29.16	2.01	85.62	30.16
	Oct	7.34	40.78	27.48	4.87	55.78	37.48		Oct	4.02	40.78	27.48	2.01	85.58	28.48
	Nov	7.34	41.01	24.15	4.87	56.01	34.15		Nov	4.02	41.01	24.15	2.01	85.81	25.15
	Dec	7.34	40.60	18.91	4.87	55.60	28.91		Dec	4.02	40.60	18.91	2.01	85.40	19.91
2008	Jan	7.77	40.27	16.69	5.15	55.27	26.69	2008	Jan	4.25	40.27	16.69	2.13	85.07	17.69
	Feb	7.77	40.12	16.90	5.15	55.12	26.90		Feb	4.25	40.12	16.90	2.13	84.92	17.90
	Mar	7.77	40.09	18.58	5.15	55.09	28.58		Mar	4.25	40.09	18.58	2.13	84.89	19.58
	Apr	7.77	40.17	22.66	5.15	55.17	32.66		Apr	4.25	40.17	22.66	2.13	84.97	23.66
	May	7.77	40.37	26.03	5.15	55.37	36.03		May	4.25	40.37	26.03	2.13	85.17	27.03
	Jun	7.77	40.40	27.76	5.15	55.40	37.76		Jun	4.25	40.40	27.76	2.13	85.20	28.76
	Jul	7.77	40.56	28.76	5.15	55.56	38.76		Jul	4.25	40.56	28.76	2.13	85.36	29.76
	Aug	7.77	40.95	28.61	5.15	55.95	38.61		Aug	4.25	40.95	28.61	2.13	85.75	29.61
	Sep	7.77	41.10	28.91	5.15	56.10	38.91		Sep	4.25	41.10	28.91	2.13	85.90	29.91
	Oct	7.77	41.11	26.31	5.15	56.11	36.31		Oct	4.25	41.11	26.31	2.13	85.91	27.31
	Nov	7.77	40.87	23.43	5.15	55.87	33.43		Nov	4.25	40.87	23.43	2.13	85.67	24.43
	Dec	7.77	40.69	19.48	5.15	55.69	29.48		Dec	4.25	40.69	19.48	2.13	85.49	20.48
2009	Jan	8.20	40.23	16.97	5.44	55.23	26.97	2009	Jan	4.49	40.23	16.97	2.25	85.03	17.97
	Feb	8.20	40.16	17.14	5.44	55.16	27.14		Feb	4.49	40.16	17.14	2.25	84.96	18.14
	Mar	8.20	40.12	18.77	5.44	55.12	28.77		Mar	4.49	40.12	18.77	2.25	84.92	19.77
	Apr	8.20	40.18	22.54	5.44	55.18	32.54		Apr	4.49	40.18	22.54	2.25	84.98	23.54
	May	8.20	40.27	25.64	5.44	55.27	35.64		May	4.49	40.27	25.64	2.25	85.07	26.64
	Jun	8.20	40.65	26.41	5.44	55.65	36.41		Jun	4.49	40.65	26.41	2.25	85.45	27.41
	Jul	8.20	40.70	28.36	5.44	55.70	38.36		Jul	4.49	40.70	28.36	2.25	85.50	29.36
	Aug	8.20	40.61	28.81	5.44	55.61	38.81		Aug	4.49	40.61	28.81	2.25	85.41	29.81
	Sep	8.20	41.00	27.75	5.44	56.00	37.75		Sep	4.49	41.00	27.75	2.25	85.80	28.75
	Oct	8.20	41.06	26.03	5.44	56.06	36.03		Oct	4.49	41.06	26.03	2.25	85.86	27.03
	Nov	8.20	40.94	23.70	5.44	55.94	33.70		Nov	4.49	40.94	23.70	2.25	85.74	24.70
	Dec	8.20	40.86	19.19	5.44	55.86	29.19		Dec	4.49	40.86	19.19	2.25	85.66	20.19
2010	Jan	8.64	40.58	17.02	5.73	55.58	27.02	2010	Jan	4.73	40.58	17.02	2.36	85.38	18.02
	Feb	8.64	40.26	17.09	5.73	55.26	27.09		Feb	4.73	40.26	17.09	2.36	85.06	18.09
	Mar	8.64	40.35	19.30	5.73	55.35	29.30		Mar	4.73	40.35	19.30	2.36	85.15	20.30
	Apr	8.64	40.15	22.02	5.73	55.15	32.02		Apr	4.73	40.15	22.02	2.36	84.95	23.02
	May	8.64	40.19	25.20	5.73	55.19	35.20		May	4.73	40.19	25.20	2.36	84.99	26.20
	Jun	8.64	40.74	27.01	5.73	55.74	37.01		Jun	4.73	40.74	27.01	2.36	85.54	28.01
	Jul	8.64	40.68	28.06	5.73	55.68	38.06		Jul	4.73	40.68	28.06	2.36	85.48	29.06
	Aug	8.64	40.74	29.11	5.73	55.74	39.11		Aug	4.73	40.74	29.11	2.36	85.54	30.11
	Sep	8.64	40.80	28.73	5.73	55.80	38.73		Sep	4.73	40.80	28.73	2.36	85.60	29.73
	Oct	8.64	41.06	27.58	5.73	56.06	37.58		Oct	4.73	41.06	27.58	2.36	85.86	28.58
	Nov	8.64	41.22	23.91	5.73	56.22	33.91		Nov	4.73	41.22	23.91	2.36	86.02	24.91
	Dec	8.64	40.71	19.79	5.73	55.71	29.79		Dec	4.73	40.71	19.79	2.36	85.51	20.79
2011	Jan	9.07	40.26	17.01	6.01	55.26	27.01	2011	Jan	4.96	40.26	17.01	2.48	85.06	18.01
	Feb	9.07	40.27	17.02	6.01	55.27	27.02		Feb	4.96	40.27	17.02	2.48	85.07	18.02

	Mar	9.07	40.36	19.21	6.01	55.36	29.21		Mar	4.96	40.36	19.21	2.48	85.16	20.21
	Apr	9.07	40.90	21.75	6.01	55.90	31.75		Apr	4.96	40.90	21.75	2.48	85.70	22.75
	May	9.07	40.73	25.26	6.01	55.73	35.26		May	4.96	40.73	25.26	2.48	85.53	26.26
	Jun	9.07	40.56	27.92	6.01	55.56	37.92		Jun	4.96	40.56	27.92	2.48	85.36	28.92
	Jul	9.07	41.00	27.99	6.01	56.00	37.99		Jul	4.96	41.00	27.99	2.48	85.80	28.99
	Aug	9.07	41.00	29.71	6.01	56.00	39.71		Aug	4.96	41.00	29.71	2.48	85.80	30.71
	Sep	9.07	40.82	28.72	6.01	55.82	38.72		Sep	4.96	40.82	28.72	2.48	85.62	29.72
	Oct	9.07	41.07	27.15	6.01	56.07	37.15		Oct	4.96	41.07	27.15	2.48	85.87	28.15
	Nov	9.07	41.02	23.36	6.01	56.02	33.36		Nov	4.96	41.02	23.36	2.48	85.82	24.36
	Dec	9.07	40.63	18.85	6.01	55.63	28.85		Dec	4.96	40.63	18.85	2.48	85.43	19.85
2012	Jan	9.50	40.21	16.62	6.30	55.21	26.62	2012	Jan	5.20	40.21	16.62	2.60	85.01	17.62
	Feb	9.50	40.11	16.67	6.30	55.11	26.67		Feb	5.20	40.11	16.67	2.60	84.91	17.67
	Mar	9.50	40.32	18.98	6.30	55.32	28.98		Mar	5.20	40.32	18.98	2.60	85.12	19.98
	Apr	9.50	40.64	22.00	6.30	55.64	32.00		Apr	5.20	40.64	22.00	2.60	85.44	23.00
	May	9.50	40.66	25.82	6.30	55.66	35.82		May	5.20	40.66	25.82	2.60	85.46	26.82
	Jun	9.50	40.87	25.86	6.30	55.87	35.86		Jun	5.20	40.87	25.86	2.60	85.67	26.86
	Jul	9.50	40.85	29.01	6.30	55.85	39.01		Jul	5.20	40.85	29.01	2.60	85.65	30.01
	Aug	9.50	40.96	29.69	6.30	55.96	39.69		Aug	5.20	40.96	29.69	2.60	85.76	30.69
	Sep	9.50	41.48	28.37	6.30	56.48	38.37		Sep	5.20	41.48	28.37	2.60	86.28	29.37
	Oct	9.50	41.44	27.29	6.30	56.44	37.29		Oct	5.20	41.44	27.29	2.60	86.24	28.29
	Nov	9.50	41.21	23.51	6.30	56.21	33.51		Nov	5.20	41.21	23.51	2.60	86.01	24.51
	Dec	9.50	40.96	18.90	6.30	55.96	28.90		Dec	5.20	40.96	18.90	2.60	85.76	19.90
2013	Jan	9.93	40.24	17.45	6.59	55.24	27.45	2013	Jan	5.44	40.24	17.45	2.72	85.04	18.45
	Feb	9.93	40.26	17.10	6.59	55.26	27.10		Feb	5.44	40.26	17.10	2.72	85.06	18.10
	Mar	9.93	40.49	19.14	6.59	55.49	29.14		Mar	5.44	40.49	19.14	2.72	85.29	20.14
	Apr	9.93	40.55	22.24	6.59	55.55	32.24		Apr	5.44	40.55	22.24	2.72	85.35	23.24
	May	9.93	40.43	25.65	6.59	55.43	35.65		May	5.44	40.43	25.65	2.72	85.23	26.65
	Jun	9.93	41.07	26.42	6.59	56.07	36.42		Jun	5.44	41.07	26.42	2.72	85.87	27.42
	Jul	9.93	41.14	29.18	6.59	56.14	39.18		Jul	5.44	41.14	29.18	2.72	85.94	30.18
	Aug	9.93	40.36	28.27	6.59	55.36	38.27		Aug	5.44	40.36	28.27	2.72	85.16	29.27
	Sep	9.93	41.31	28.72	6.59	56.31	38.72		Sep	5.44	41.31	28.72	2.72	86.11	29.72
	Oct	9.93	41.63	26.33	6.59	56.63	36.33		Oct	5.44	41.63	26.33	2.72	86.43	27.33
	Nov	9.93	41.26	23.02	6.59	56.26	33.02		Nov	5.44	41.26	23.02	2.72	86.06	24.02
	Dec	9.93	40.98	20.08	6.59	55.98	30.08		Dec	5.44	40.98	20.08	2.72	85.78	21.08
2014	Jan	10.36	40.42	16.89	6.87	55.42	26.89	2014	Jan	5.67	40.42	16.89	2.84	85.22	17.89
	Feb	10.36	40.60	17.07	6.87	55.60	27.07		Feb	5.67	40.60	17.07	2.84	85.40	18.07
	Mar	10.36	40.36	19.36	6.87	55.36	29.36		Mar	5.67	40.36	19.36	2.84	85.16	20.36
	Apr	10.36	40.52	22.09	6.87	55.52	32.09		Apr	5.67	40.52	22.09	2.84	85.32	23.09
	May	10.36	40.46	25.27	6.87	55.46	35.27		May	5.67	40.46	25.27	2.84	85.26	26.27
	Jun	10.36	40.78	27.43	6.87	55.78	37.43		Jun	5.67	40.78	27.43	2.84	85.58	28.43
	Jul	10.36	41.05	29.51	6.87	56.05	39.51		Jul	5.67	41.05	29.51	2.84	85.85	30.51
	Aug	10.36	41.12	28.97	6.87	56.12	38.97		Aug	5.67	41.12	28.97	2.84	85.92	29.97
	Sep	10.36	41.11	28.80	6.87	56.10	38.80		Sep	5.67	41.11	28.80	2.84	85.90	29.80
	Oct	10.36	41.19	27.22	6.87	56.19	37.22		Oct	5.67	41.19	27.22	2.84	85.99	28.22
	Nov	10.36	41.24	23.11	6.87	56.24	33.11		Nov	5.67	41.24	23.11	2.84	86.04	24.11
	Dec	10.36	41.20	18.83	6.87	56.20	28.83		Dec	5.67	41.20	18.83	2.84	86.00	19.83
2015	Jan	10.80	40.97	16.53	7.16	55.97	26.53	2015	Jan	5.91	40.97	16.53	2.95	85.77	17.53
	Feb	10.80	40.92	16.87	7.16	55.92	26.87		Feb	5.91	40.92	16.87	2.95	85.72	17.87
	Mar	10.80	40.36	19.36	7.16	55.36	29.36		Mar	5.91	40.36	19.36	2.95	85.16	20.36
	Apr	10.80	41.09	22.13	7.16	56.09	32.13		Apr	5.91	41.09	22.13	2.95	85.89	23.13
	May	10.80	41.16	24.96	7.16	56.16	34.96		May	5.91	41.16	24.96	2.95	85.96	25.96
	Jun	10.80	41.40	27.45	7.16	56.40	37.45		Jun	5.91	41.40	27.45	2.95	86.20	28.45
	Jul	10.80	41.58	28.46	7.16	56.58	38.46		Jul	5.91	41.58	28.46	2.95	86.38	29.46
	Aug	10.80	41.18	30.07	7.16	56.18	40.07		Aug	5.91	41.18	30.07	2.95	85.98	31.07
	Sep	10.80	41.31	28.84	7.16	56.31	38.84		Sep	5.91	41.31	28.84	2.95	86.11	29.84
	Oct	10.80	41.32	27.54	7.16	56.32	37.54		Oct	5.91	41.32	27.54	2.95	86.12	28.54
	Nov	10.80	41.60	23.31	7.16	56.60	33.31		Nov	5.91	41.60	23.31	2.95	86.40	24.31
	Dec	10.80	41.12	19.80	7.16	56.12	29.80		Dec	5.91	41.12	19.80	2.95	85.92	20.80

Bahrain (Alhidd) MSF	Inflow			Outflow			Bahrain (Aldoor) RO	Inflow			Outflow		
	F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)

2004	Jan	3.37	40.12	16.59	2.55	50.12	26.59	2004	Jan	1.00	40.12	16.59	0.50	84.92	17.59
	Feb	3.37	39.97	17.10	2.55	49.97	27.10		Feb	1.00	39.97	17.10	0.50	84.77	18.10
	Mar	3.37	40.07	18.67	2.55	50.07	28.67		Mar	1.00	40.07	18.67	0.50	84.87	19.67
	Apr	3.37	40.20	23.00	2.55	50.20	33.00		Apr	1.00	40.20	23.00	0.50	85.00	24.00
	May	3.37	40.28	24.95	2.55	50.28	34.95		May	1.00	40.28	24.95	0.50	85.08	25.95
	Jun	3.37	40.39	26.95	2.55	50.39	36.95		Jun	1.00	40.39	26.95	0.50	85.19	27.95
	Jul	3.37	40.20	28.92	2.55	50.20	38.92		Jul	1.00	40.20	28.92	0.50	85.00	29.92
	Aug	3.37	40.56	29.22	2.55	50.56	39.22		Aug	1.00	40.56	29.22	0.50	85.36	30.22
	Sep	3.37	40.79	28.66	2.55	50.79	38.66		Sep	1.00	40.79	28.66	0.50	85.59	29.66
	Oct	3.37	41.05	27.78	2.55	51.05	37.78		Oct	1.00	41.05	27.78	0.50	85.85	28.78
	Nov	3.37	40.79	23.87	2.55	50.79	33.87		Nov	1.00	40.79	23.87	0.50	85.59	24.87
	Dec	3.37	40.22	18.66	2.55	50.22	28.66		Dec	1.00	40.22	18.66	0.50	85.02	19.66
2005	Jan	3.61	40.03	16.47	2.73	50.03	26.47	2005	Jan	1.00	40.03	16.47	0.50	84.83	17.47
	Feb	3.61	39.98	16.81	2.73	49.98	26.81		Feb	1.00	39.98	16.81	0.50	84.78	17.81
	Mar	3.61	40.01	19.35	2.73	50.01	29.35		Mar	1.00	40.01	19.35	0.50	84.81	20.35
	Apr	3.61	39.97	22.31	2.73	49.97	32.31		Apr	1.00	39.97	22.31	0.50	84.77	23.31
	May	3.61	40.26	25.48	2.73	50.26	35.48		May	1.00	40.26	25.48	0.50	84.06	26.48
	Jun	3.61	40.47	27.14	2.73	50.47	37.14		Jun	1.00	40.47	27.14	0.50	85.27	28.14
	Jul	3.61	40.44	27.83	2.73	50.44	37.83		Jul	1.00	40.44	27.83	0.50	85.24	28.83
	Aug	3.61	40.73	29.31	2.73	50.73	39.31		Aug	1.00	40.73	29.31	0.50	85.53	30.31
	Sep	3.61	41.01	29.21	2.73	51.01	39.21		Sep	1.00	41.01	29.21	0.50	85.81	30.21
	Oct	3.61	41.18	26.68	2.73	51.18	36.68		Oct	1.00	41.18	26.68	0.50	85.98	27.68
	Nov	3.61	40.68	23.75	2.73	50.68	33.75		Nov	1.00	40.68	23.75	0.50	85.48	24.75
	Dec	3.61	40.34	19.86	2.73	50.34	29.86		Dec	1.00	40.34	19.86	0.50	85.14	20.86
2006	Jan	3.85	39.97	16.29	2.91	49.97	26.29	2006	Jan	1.00	39.97	16.29	0.50	84.77	17.29
	Feb	3.85	40.17	16.57	2.91	50.17	26.57		Feb	1.00	40.17	16.57	0.50	84.97	17.57
	Mar	3.85	40.34	19.52	2.91	50.34	29.52		Mar	1.00	40.34	19.52	0.50	85.14	20.52
	Apr	3.85	40.29	22.24	2.91	50.29	32.24		Apr	1.00	40.29	22.24	0.50	85.09	23.24
	May	3.85	40.21	25.47	2.91	50.21	35.47		May	1.00	40.21	25.47	0.50	85.01	26.47
	Jun	3.85	40.47	26.33	2.91	50.47	36.33		Jun	1.00	40.47	26.33	0.50	85.27	27.33
	Jul	3.85	40.58	27.90	2.91	50.58	37.90		Jul	1.00	40.58	27.90	0.50	85.38	28.90
	Aug	3.85	40.50	28.74	2.91	50.50	38.74		Aug	1.00	40.50	28.74	0.50	85.30	29.74
	Sep	3.85	40.66	29.20	2.91	50.66	39.20		Sep	1.00	40.66	29.20	0.50	85.46	30.20
	Oct	3.85	41.16	26.81	2.91	51.16	36.81		Oct	1.00	41.16	26.81	0.50	85.96	27.81
	Nov	3.85	41.12	23.52	2.91	51.12	33.52		Nov	1.00	41.12	23.52	0.50	85.92	24.52
	Dec	3.85	40.74	19.69	2.91	50.74	29.69		Dec	1.00	40.74	19.69	0.50	85.54	20.69
2007	Jan	4.10	40.06	16.09	3.09	50.06	26.09	2007	Jan	1.00	40.06	16.09	0.50	84.86	17.09
	Feb	4.10	40.20	16.78	3.09	50.20	26.78		Feb	1.00	40.20	16.78	0.50	85.00	17.78
	Mar	4.10	40.34	19.06	3.09	50.34	29.06		Mar	1.00	40.34	19.06	0.50	85.14	20.06
	Apr	4.10	40.45	22.30	3.09	50.45	32.30		Apr	1.00	40.45	22.30	0.50	85.25	23.30
	May	4.10	40.47	25.59	3.09	50.47	35.59		May	1.00	40.47	25.59	0.50	85.27	26.59
	Jun	4.10	40.47	27.85	3.09	50.47	37.85		Jun	1.00	40.47	27.85	0.50	85.27	28.85
	Jul	4.10	40.64	29.37	3.09	50.64	39.37		Jul	1.00	40.64	29.37	0.50	85.44	30.37
	Aug	4.10	40.92	29.56	3.09	50.92	39.56		Aug	1.00	40.92	29.56	0.50	85.72	30.56
	Sep	4.10	40.82	29.16	3.09	50.82	39.16		Sep	1.00	40.82	29.16	0.50	85.62	30.16
	Oct	4.10	40.78	27.48	3.09	50.78	37.48		Oct	1.00	40.78	27.48	0.50	85.58	28.48
	Nov	4.10	41.01	24.15	3.09	51.01	34.15		Nov	1.00	41.01	24.15	0.50	85.81	25.15
	Dec	4.10	40.60	18.91	3.09	50.60	28.91		Dec	1.00	40.60	18.91	0.50	85.40	19.91
2008	Jan	4.34	40.27	16.69	3.27	50.27	26.69	2008	Jan	1.00	40.27	16.69	0.50	85.07	17.69
	Feb	4.34	40.12	16.90	3.27	50.12	26.90		Feb	1.00	40.12	16.90	0.50	84.92	17.90
	Mar	4.34	40.09	18.58	3.27	50.09	28.58		Mar	1.00	40.09	18.58	0.50	84.89	19.58
	Apr	4.34	40.17	22.66	3.27	50.17	32.66		Apr	1.00	40.17	22.66	0.50	84.97	23.66
	May	4.34	40.37	26.03	3.27	50.37	36.03		May	1.00	40.37	26.03	0.50	85.17	27.03
	Jun	4.34	40.40	27.76	3.27	50.40	37.76		Jun	1.00	40.40	27.76	0.50	85.20	28.76
	Jul	4.34	40.56	28.76	3.27	50.56	38.76		Jul	1.00	40.56	28.76	0.50	85.36	29.76
	Aug	4.34	40.95	28.61	3.27	50.95	38.61		Aug	1.00	40.95	28.61	0.50	85.75	29.61
	Sep	4.34	41.10	28.91	3.27	51.10	38.91		Sep	1.00	41.10	28.91	0.50	85.90	29.91
	Oct	4.34	41.11	26.31	3.27	51.11	36.31		Oct	1.00	41.11	26.31	0.50	85.91	27.31
	Nov	4.34	40.87	23.43	3.27	50.87	33.43		Nov	1.00	40.87	23.43	0.50	85.67	24.43
	Dec	4.34	40.69	19.48	3.27	50.69	29.48		Dec	1.00	40.69	19.48	0.50	85.49	20.48
2009	Jan	4.58	40.23	16.97	3.45	50.23	26.97	2009	Jan	1.00	40.23	16.97	0.50	85.03	17.97
	Feb	4.58	40.16	17.14	3.45	50.16	27.14		Feb	1.00	40.16	17.14	0.50	84.96	18.14
	Mar	4.58	40.12	18.77	3.45	50.12	28.77		Mar	1.00	40.12	18.77	0.50	84.92	19.77
	Apr	4.58	40.18	22.54	3.45	50.18	32.54		Apr	1.00	40.18	22.54	0.50	84.98	23.54

	May	4.58	40.27	25.64	3.45	50.27	35.64		May	1.00	40.27	25.64	0.50	85.07	26.64
	Jun	4.58	40.65	26.41	3.45	50.65	36.41		Jun	1.00	40.65	26.41	0.50	85.45	27.41
	Jul	4.58	40.70	28.36	3.45	50.70	38.36		Jul	1.00	40.70	28.36	0.50	85.50	29.36
	Aug	4.58	40.61	28.81	3.45	50.61	38.81		Aug	1.00	40.61	28.81	0.50	85.41	29.81
	Sep	4.58	41.00	27.75	3.45	51.00	37.75		Sep	1.00	41.00	27.75	0.50	85.80	28.75
	Oct	4.58	41.06	26.03	3.45	51.06	36.03		Oct	1.00	41.06	26.03	0.50	85.86	27.03
	Nov	4.58	40.94	23.70	3.45	50.94	33.70		Nov	1.00	40.94	23.70	0.50	85.74	24.70
2010	Dec	4.58	40.86	19.19	3.45	50.86	29.19	2010	Dec	1.00	40.86	19.19	0.50	85.66	20.19
	Jan	4.82	40.58	17.02	3.64	50.58	27.02		Jan	1.00	40.58	17.02	0.50	85.38	18.02
	Feb	4.82	40.26	17.09	3.64	50.26	27.09		Feb	1.00	40.26	17.09	0.50	85.06	18.09
	Mar	4.82	40.35	19.30	3.64	50.35	29.30		Mar	1.00	40.35	19.30	0.50	85.15	20.30
	Apr	4.82	40.15	22.02	3.64	50.15	32.02		Apr	1.00	40.15	22.02	0.50	84.95	23.02
	May	4.82	40.19	25.20	3.64	50.19	35.20		May	1.00	40.19	25.20	0.50	84.99	26.20
	Jun	4.82	40.74	27.01	3.64	50.74	37.01		Jun	1.00	40.74	27.01	0.50	85.54	28.01
	Jul	4.82	40.68	28.06	3.64	50.68	38.06		Jul	1.00	40.68	28.06	0.50	85.48	29.06
	Aug	4.82	40.74	29.11	3.64	50.74	39.11		Aug	1.00	40.74	29.11	0.50	85.54	30.11
	Sep	4.82	40.80	28.73	3.64	50.80	38.73		Sep	1.00	40.80	28.73	0.50	85.60	29.73
	Oct	4.82	41.06	27.58	3.64	51.06	37.58		Oct	1.00	41.06	27.58	0.50	85.86	28.58
	Nov	4.82	41.22	23.91	3.64	51.22	33.91		Nov	1.00	41.22	23.91	0.50	86.02	24.91
2011	Dec	4.82	40.71	19.79	3.64	50.71	29.79	2011	Dec	1.00	40.71	19.79	0.50	85.51	20.79
	Jan	5.06	40.26	17.01	3.82	50.26	27.01		Jan	1.00	40.26	17.01	0.50	85.06	18.01
	Feb	5.06	40.27	17.02	3.82	50.27	27.02		Feb	1.00	40.27	17.02	0.50	85.07	18.02
	Mar	5.06	40.36	19.21	3.82	50.36	29.21		Mar	1.00	40.36	19.21	0.50	85.16	20.21
	Apr	5.06	40.90	21.75	3.82	50.90	31.75		Apr	1.00	40.90	21.75	0.50	85.70	22.75
	May	5.06	40.73	25.26	3.82	50.73	35.26		May	1.00	40.73	25.26	0.50	85.53	26.26
	Jun	5.06	40.56	27.92	3.82	50.56	37.92		Jun	1.00	40.56	27.92	0.50	85.36	28.92
	Jul	5.06	41.00	27.99	3.82	51.00	37.99		Jul	1.00	41.00	27.99	0.50	85.80	28.99
	Aug	5.06	41.00	29.71	3.82	51.00	39.71		Aug	1.00	41.00	29.71	0.50	85.80	30.71
	Sep	5.06	40.82	28.72	3.82	50.82	38.72		Sep	1.00	40.82	28.72	0.50	85.62	29.72
	Oct	5.06	41.07	27.15	3.82	51.07	37.15		Oct	1.00	41.07	27.15	0.50	85.87	28.15
	Nov	5.06	41.02	23.36	3.82	51.02	33.36		Nov	1.00	41.02	23.36	0.50	85.82	24.36
2012	Dec	5.06	40.63	18.85	3.82	50.63	28.85	2012	Dec	1.00	40.63	18.85	0.50	85.43	19.85
	Jan	5.30	40.21	16.62	4.00	50.21	26.62		Jan	1.00	40.21	16.62	0.50	85.01	17.62
	Feb	5.30	40.11	16.67	4.00	50.11	26.67		Feb	1.00	40.11	16.67	0.50	84.91	17.67
	Mar	5.30	40.32	18.98	4.00	50.32	28.98		Mar	1.00	40.32	18.98	0.50	85.12	19.98
	Apr	5.30	40.64	22.00	4.00	50.64	32.00		Apr	1.00	40.64	22.00	0.50	85.44	23.00
	May	5.30	40.66	25.82	4.00	50.66	35.82		May	1.00	40.66	25.82	0.50	85.46	26.82
	Jun	5.30	40.87	25.86	4.00	50.87	35.86		Jun	1.00	40.87	25.86	0.50	85.67	26.86
	Jul	5.30	40.85	29.01	4.00	50.85	39.01		Jul	1.00	40.85	29.01	0.50	85.65	30.01
	Aug	5.30	40.96	29.69	4.00	50.96	39.69		Aug	1.00	40.96	29.69	0.50	85.76	30.69
	Sep	5.30	41.48	28.37	4.00	51.48	38.37		Sep	1.00	41.48	28.37	0.50	86.28	29.37
	Oct	5.30	41.44	27.29	4.00	51.44	37.29		Oct	1.00	41.44	27.29	0.50	86.24	28.29
	Nov	5.30	41.21	23.51	4.00	51.21	33.51		Nov	1.00	41.21	23.51	0.50	86.01	24.51
2013	Dec	5.30	40.96	18.90	4.00	50.96	28.90	2013	Dec	1.00	40.96	18.90	0.50	85.76	19.90
	Jan	5.54	40.24	17.45	4.18	50.24	27.45		Jan	1.00	40.24	17.45	0.50	85.04	18.45
	Feb	5.54	40.26	17.10	4.18	50.26	27.10		Feb	1.00	40.26	17.10	0.50	85.06	18.10
	Mar	5.54	40.49	19.14	4.18	50.49	29.14		Mar	1.00	40.49	19.14	0.50	85.29	20.14
	Apr	5.54	40.55	22.24	4.18	50.55	32.24		Apr	1.00	40.55	22.24	0.50	85.35	23.24
	May	5.54	40.43	25.65	4.18	50.43	35.65		May	1.00	40.43	25.65	0.50	85.23	26.65
	Jun	5.54	41.07	26.42	4.18	51.07	36.42		Jun	1.00	41.07	26.42	0.50	85.87	27.42
	Jul	5.54	41.14	29.18	4.18	51.14	39.18		Jul	1.00	41.14	29.18	0.50	85.94	30.18
	Aug	5.54	40.36	28.27	4.18	50.36	38.27		Aug	1.00	40.36	28.27	0.50	85.16	29.27
	Sep	5.54	41.31	28.72	4.18	51.31	38.72		Sep	1.00	41.31	28.72	0.50	86.11	29.72
	Oct	5.54	41.63	26.33	4.18	51.63	36.33		Oct	1.00	41.63	26.33	0.50	86.43	27.33
	Nov	5.54	41.26	23.02	4.18	51.26	33.02		Nov	1.00	41.26	23.02	0.50	86.06	24.02
2014	Dec	5.54	40.98	20.08	4.18	50.98	30.08	2014	Dec	1.00	40.98	20.08	0.50	85.78	21.08
	Jan	5.78	40.42	16.89	4.36	50.42	26.89		Jan	1.00	40.42	16.89	0.50	85.22	17.89
	Feb	5.78	40.60	17.07	4.36	50.60	27.07		Feb	1.00	40.60	17.07	0.50	85.40	18.07
	Mar	5.78	40.36	19.36	4.36	50.36	29.36		Mar	1.00	40.36	19.36	0.50	85.16	20.36
	Apr	5.78	40.52	22.09	4.36	50.52	32.09		Apr	1.00	40.52	22.09	0.50	85.32	23.09
	May	5.78	40.46	25.27	4.36	50.46	35.27		May	1.00	40.46	25.27	0.50	85.26	26.27
	Jun	5.78	40.78	27.43	4.36	50.78	37.43		Jun	1.00	40.78	27.43	0.50	85.58	28.43
	Jul	5.78	41.05	29.51	4.36	51.05	39.51		Jul	1.00	41.05	29.51	0.50	85.85	30.51
	Aug	5.78	41.12	28.97	4.36	51.12	38.97		Aug	1.00	41.12	28.97	0.50	85.92	29.97

	Sep	5.78	41.11	28.80	4.36	51.10	38.80		Sep	1.00	41.11	28.80	0.50	85.90	29.80
	Oct	5.78	41.19	27.22	4.36	51.19	37.22		Oct	1.00	41.19	27.22	0.50	85.99	28.22
	Nov	5.78	41.24	23.11	4.36	51.24	33.11		Nov	1.00	41.24	23.11	0.50	86.04	24.11
	Dec	5.78	41.20	18.83	4.36	51.20	28.83		Dec	1.00	41.20	18.83	0.50	86.00	19.83
2015	Jan	6.02	40.97	16.53	4.55	50.97	26.53	2015	Jan	1.00	40.97	16.53	0.50	85.77	17.53
	Feb	6.02	40.92	16.87	4.55	50.92	26.87		Feb	1.00	40.92	16.87	0.50	85.72	17.87
	Mar	6.02	40.36	19.36	4.55	50.36	29.36		Mar	1.00	40.36	19.36	0.50	85.16	20.36
	Apr	6.02	41.09	22.13	4.55	51.09	32.13		Apr	1.00	41.09	22.13	0.50	85.89	23.13
	May	6.02	41.16	24.96	4.55	51.16	34.96		May	1.00	41.16	24.96	0.50	85.96	25.96
	Jun	6.02	41.40	27.45	4.55	51.40	37.45		Jun	1.00	41.40	27.45	0.50	86.20	28.45
	Jul	6.02	41.58	28.46	4.55	51.58	38.46		Jul	1.00	41.58	28.46	0.50	86.38	29.46
	Aug	6.02	41.18	30.07	4.55	51.18	40.07		Aug	1.00	41.18	30.07	0.50	85.98	31.07
	Sep	6.02	41.31	28.84	4.55	51.31	38.84		Sep	1.00	41.31	28.84	0.50	86.11	29.84
	Oct	6.02	41.32	27.54	4.55	51.32	37.54		Oct	1.00	41.32	27.54	0.50	86.12	28.54
	Nov	6.02	41.60	23.31	4.55	51.60	33.31		Nov	1.00	41.60	23.31	0.50	86.40	24.31
	Dec	6.02	41.12	19.80	4.55	51.12	29.80		Dec	1.00	41.12	19.80	0.50	85.92	20.80

Bahrain (Alba) MED		Inflow			Outflow			Bahrain (Alba) RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	0.70	40.12	16.59	0.45	55.12	26.59	2004	Jan	0.38	40.12	16.59	0.19	84.92	17.59
	Feb	0.70	39.97	17.10	0.45	54.97	27.10		Feb	0.38	39.97	17.10	0.19	84.77	18.10
	Mar	0.70	40.07	18.67	0.45	55.07	28.67		Mar	0.38	40.07	18.67	0.19	84.87	19.67
	Apr	0.70	40.20	23.00	0.45	55.20	33.00		Apr	0.38	40.20	23.00	0.19	85.00	24.00
	May	0.70	40.28	24.95	0.45	55.28	34.95		May	0.38	40.28	24.95	0.19	85.08	25.95
	Jun	0.70	40.39	26.95	0.45	55.39	36.95		Jun	0.38	40.39	26.95	0.19	85.19	27.95
	Jul	0.70	40.20	28.92	0.45	55.20	38.92		Jul	0.38	40.20	28.92	0.19	85.00	29.92
	Aug	0.70	40.56	29.22	0.45	55.56	39.22		Aug	0.38	40.56	29.22	0.19	85.36	30.22
	Sep	0.70	40.79	28.66	0.45	55.79	38.66		Sep	0.38	40.79	28.66	0.19	85.59	29.66
	Oct	0.70	41.05	27.78	0.45	56.05	37.78		Oct	0.38	41.05	27.78	0.19	85.85	28.78
	Nov	0.70	40.79	23.87	0.45	55.79	33.87		Nov	0.38	40.79	23.87	0.19	85.59	24.87
	Dec	0.70	40.22	18.66	0.45	55.22	28.66		Dec	0.38	40.22	18.66	0.19	85.02	19.66
2005	Jan	0.75	40.03	16.47	0.48	55.03	26.47	2005	Jan	0.41	40.03	16.47	0.20	84.83	17.47
	Feb	0.75	39.98	16.81	0.48	54.98	26.81		Feb	0.41	39.98	16.81	0.20	84.78	17.81
	Mar	0.75	40.01	19.35	0.48	55.01	29.35		Mar	0.41	40.01	19.35	0.20	84.81	20.35
	Apr	0.75	39.97	22.31	0.48	54.97	32.31		Apr	0.41	39.97	22.31	0.20	84.77	23.31
	May	0.75	40.26	25.48	0.48	55.26	35.48		May	0.41	40.26	25.48	0.20	84.06	26.48
	Jun	0.75	40.47	27.14	0.48	55.47	37.14		Jun	0.41	40.47	27.14	0.20	85.27	28.14
	Jul	0.75	40.44	27.83	0.48	55.44	37.83		Jul	0.41	40.44	27.83	0.20	85.24	28.83
	Aug	0.75	40.73	29.31	0.48	55.73	39.31		Aug	0.41	40.73	29.31	0.20	85.53	30.31
	Sep	0.75	41.01	29.21	0.48	56.01	39.21		Sep	0.41	41.01	29.21	0.20	85.81	30.21
	Oct	0.75	41.18	26.68	0.48	56.18	36.68		Oct	0.41	41.18	26.68	0.20	85.98	27.68
	Nov	0.75	40.68	23.75	0.48	55.68	33.75		Nov	0.41	40.68	23.75	0.20	85.48	24.75
	Dec	0.75	40.34	19.86	0.48	55.34	29.86		Dec	0.41	40.34	19.86	0.20	85.14	20.86
2006	Jan	0.80	39.97	16.29	0.51	54.97	26.29	2006	Jan	0.44	39.97	16.29	0.22	84.77	17.29
	Feb	0.80	40.17	16.57	0.51	55.17	26.57		Feb	0.44	40.17	16.57	0.22	84.97	17.57
	Mar	0.80	40.34	19.52	0.51	55.34	29.52		Mar	0.44	40.34	19.52	0.22	85.14	20.52
	Apr	0.80	40.29	22.24	0.51	55.29	32.24		Apr	0.44	40.29	22.24	0.22	85.09	23.24
	May	0.80	40.21	25.47	0.51	55.21	35.47		May	0.44	40.21	25.47	0.22	85.01	26.47
	Jun	0.80	40.47	26.33	0.51	55.47	36.33		Jun	0.44	40.47	26.33	0.22	85.27	27.33
	Jul	0.80	40.58	27.90	0.51	55.58	37.90		Jul	0.44	40.58	27.90	0.22	85.38	28.90
	Aug	0.80	40.50	28.74	0.51	55.50	38.74		Aug	0.44	40.50	28.74	0.22	85.30	29.74
	Sep	0.80	40.66	29.20	0.51	55.66	39.20		Sep	0.44	40.66	29.20	0.22	85.46	30.20
	Oct	0.80	41.16	26.81	0.51	56.16	36.81		Oct	0.44	41.16	26.81	0.22	85.96	27.81
	Nov	0.80	41.12	23.52	0.51	56.12	33.52		Nov	0.44	41.12	23.52	0.22	85.92	24.52
	Dec	0.80	40.74	19.69	0.51	55.74	29.69		Dec	0.44	40.74	19.69	0.22	85.54	20.69
2007	Jan	0.85	40.06	16.09	0.54	55.06	26.09	2007	Jan	0.46	40.06	16.09	0.23	84.86	17.09
	Feb	0.85	40.20	16.78	0.54	55.20	26.78		Feb	0.46	40.20	16.78	0.23	85.00	17.78
	Mar	0.85	40.34	19.06	0.54	55.34	29.06		Mar	0.46	40.34	19.06	0.23	85.14	20.06
	Apr	0.85	40.45	22.30	0.54	55.45	32.30		Apr	0.46	40.45	22.30	0.23	85.25	23.30
	May	0.85	40.47	25.59	0.54	55.47	35.59		May	0.46	40.47	25.59	0.23	85.27	26.59
	Jun	0.85	40.47	27.85	0.54	55.47	37.85		Jun	0.46	40.47	27.85	0.23	85.27	28.85

	Jul	0.85	40.64	29.37	0.54	55.64	39.37		Jul	0.46	40.64	29.37	0.23	85.44	30.37
	Aug	0.85	40.92	29.56	0.54	55.92	39.56		Aug	0.46	40.92	29.56	0.23	85.72	30.56
	Sep	0.85	40.82	29.16	0.54	55.82	39.16		Sep	0.46	40.82	29.16	0.23	85.62	30.16
	Oct	0.85	40.78	27.48	0.54	55.78	37.48		Oct	0.46	40.78	27.48	0.23	85.58	28.48
	Nov	0.85	41.01	24.15	0.54	56.01	34.15		Nov	0.46	41.01	24.15	0.23	85.81	25.15
2008	Dec	0.85	40.60	18.91	0.54	55.60	28.91	2008	Dec	0.46	40.60	18.91	0.23	85.40	19.91
	Jan	0.90	40.27	16.69	0.57	55.27	26.69		Jan	0.49	40.27	16.69	0.25	85.07	17.69
	Feb	0.90	40.12	16.90	0.57	55.12	26.90		Feb	0.49	40.12	16.90	0.25	84.92	17.90
	Mar	0.90	40.09	18.58	0.57	55.09	28.58		Mar	0.49	40.09	18.58	0.25	84.89	19.58
	Apr	0.90	40.17	22.66	0.57	55.17	32.66		Apr	0.49	40.17	22.66	0.25	84.97	23.66
	May	0.90	40.37	26.03	0.57	55.37	36.03		May	0.49	40.37	26.03	0.25	85.17	27.03
	Jun	0.90	40.40	27.76	0.57	55.40	37.76		Jun	0.49	40.40	27.76	0.25	85.20	28.76
	Jul	0.90	40.56	28.76	0.57	55.56	38.76		Jul	0.49	40.56	28.76	0.25	85.36	29.76
	Aug	0.90	40.95	28.61	0.57	55.95	38.61		Aug	0.49	40.95	28.61	0.25	85.75	29.61
	Sep	0.90	41.10	28.91	0.57	56.10	38.91		Sep	0.49	41.10	28.91	0.25	85.90	29.91
	Oct	0.90	41.11	26.31	0.57	56.11	36.31		Oct	0.49	41.11	26.31	0.25	85.91	27.31
	Nov	0.90	40.87	23.43	0.57	55.87	33.43		Nov	0.49	40.87	23.43	0.25	85.67	24.43
2009	Dec	0.90	40.69	19.48	0.57	55.69	29.48	2009	Dec	0.49	40.69	19.48	0.25	85.49	20.48
	Jan	0.95	40.23	16.97	0.60	55.23	26.97		Jan	0.52	40.23	16.97	0.26	85.03	17.97
	Feb	0.95	40.16	17.14	0.60	55.16	27.14		Feb	0.52	40.16	17.14	0.26	84.96	18.14
	Mar	0.95	40.12	18.77	0.60	55.12	28.77		Mar	0.52	40.12	18.77	0.26	84.92	19.77
	Apr	0.95	40.18	22.54	0.60	55.18	32.54		Apr	0.52	40.18	22.54	0.26	84.98	23.54
	May	0.95	40.27	25.64	0.60	55.27	35.64		May	0.52	40.27	25.64	0.26	85.07	26.64
	Jun	0.95	40.65	26.41	0.60	55.65	36.41		Jun	0.52	40.65	26.41	0.26	85.45	27.41
	Jul	0.95	40.70	28.36	0.60	55.70	38.36		Jul	0.52	40.70	28.36	0.26	85.50	29.36
	Aug	0.95	40.61	28.81	0.60	55.61	38.81		Aug	0.52	40.61	28.81	0.26	85.41	29.81
	Sep	0.95	41.00	27.75	0.60	56.00	37.75		Sep	0.52	41.00	27.75	0.26	85.80	28.75
	Oct	0.95	41.06	26.03	0.60	56.06	36.03		Oct	0.52	41.06	26.03	0.26	85.86	27.03
	Nov	0.95	40.94	23.70	0.60	55.94	33.70		Nov	0.52	40.94	23.70	0.26	85.74	24.70
2010	Dec	0.95	40.86	19.19	0.60	55.86	29.19	2010	Dec	0.52	40.86	19.19	0.26	85.66	20.19
	Jan	1.00	40.58	17.02	0.64	55.58	27.02		Jan	0.55	40.58	17.02	0.27	85.38	18.02
	Feb	1.00	40.26	17.09	0.64	55.26	27.09		Feb	0.55	40.26	17.09	0.27	85.06	18.09
	Mar	1.00	40.35	19.30	0.64	55.35	29.30		Mar	0.55	40.35	19.30	0.27	85.15	20.30
	Apr	1.00	40.15	22.02	0.64	55.15	32.02		Apr	0.55	40.15	22.02	0.27	84.95	23.02
	May	1.00	40.19	25.20	0.64	55.19	35.20		May	0.55	40.19	25.20	0.27	84.99	26.20
	Jun	1.00	40.74	27.01	0.64	55.74	37.01		Jun	0.55	40.74	27.01	0.27	85.54	28.01
	Jul	1.00	40.68	28.06	0.64	55.68	38.06		Jul	0.55	40.68	28.06	0.27	85.48	29.06
	Aug	1.00	40.74	29.11	0.64	55.74	39.11		Aug	0.55	40.74	29.11	0.27	85.54	30.11
	Sep	1.00	40.80	28.73	0.64	55.80	38.73		Sep	0.55	40.80	28.73	0.27	85.60	29.73
	Oct	1.00	41.06	27.58	0.64	56.06	37.58		Oct	0.55	41.06	27.58	0.27	85.86	28.58
	Nov	1.00	41.22	23.91	0.64	56.22	33.91		Nov	0.55	41.22	23.91	0.27	86.02	24.91
2011	Dec	1.00	40.71	19.79	0.64	55.71	29.79	2011	Dec	0.55	40.71	19.79	0.27	85.51	20.79
	Jan	1.05	40.26	17.01	0.67	55.26	27.01		Jan	0.57	40.26	17.01	0.29	85.06	18.01
	Feb	1.05	40.27	17.02	0.67	55.27	27.02		Feb	0.57	40.27	17.02	0.29	85.07	18.02
	Mar	1.05	40.36	19.21	0.67	55.36	29.21		Mar	0.57	40.36	19.21	0.29	85.16	20.21
	Apr	1.05	40.90	21.75	0.67	55.90	31.75		Apr	0.57	40.90	21.75	0.29	85.70	22.75
	May	1.05	40.73	25.26	0.67	55.73	35.26		May	0.57	40.73	25.26	0.29	85.53	26.26
	Jun	1.05	40.56	27.92	0.67	55.56	37.92		Jun	0.57	40.56	27.92	0.29	85.36	28.92
	Jul	1.05	41.00	27.99	0.67	56.00	37.99		Jul	0.57	41.00	27.99	0.29	85.80	28.99
	Aug	1.05	41.00	29.71	0.67	56.00	39.71		Aug	0.57	41.00	29.71	0.29	85.80	30.71
	Sep	1.05	40.82	28.72	0.67	55.82	38.72		Sep	0.57	40.82	28.72	0.29	85.62	29.72
	Oct	1.05	41.07	27.15	0.67	56.07	37.15		Oct	0.57	41.07	27.15	0.29	85.87	28.15
	Nov	1.05	41.02	23.36	0.67	56.02	33.36		Nov	0.57	41.02	23.36	0.29	85.82	24.36
	Dec	1.05	40.63	18.85	0.67	55.63	28.85		Dec	0.57	40.63	18.85	0.29	85.43	19.85
2012	Jan	1.10	40.21	16.62	0.70	55.21	26.62	2012	Jan	0.60	40.21	16.62	0.30	85.01	17.62
	Feb	1.10	40.11	16.67	0.70	55.11	26.67		Feb	0.60	40.11	16.67	0.30	84.91	17.67
	Mar	1.10	40.32	18.98	0.70	55.32	28.98		Mar	0.60	40.32	18.98	0.30	85.12	19.98
	Apr	1.10	40.64	22.00	0.70	55.64	32.00		Apr	0.60	40.64	22.00	0.30	85.44	23.00
	May	1.10	40.66	25.82	0.70	55.66	35.82		May	0.60	40.66	25.82	0.30	85.46	26.82
	Jun	1.10	40.87	25.86	0.70	55.87	35.86		Jun	0.60	40.87	25.86	0.30	85.67	26.86
	Jul	1.10	40.85	29.01	0.70	55.85	39.01		Jul	0.60	40.85	29.01	0.30	85.65	30.01
	Aug	1.10	40.96	29.69	0.70	55.96	39.69		Aug	0.60	40.96	29.69	0.30	85.76	30.69
	Sep	1.10	41.48	28.37	0.70	56.48	38.37		Sep	0.60	41.48	28.37	0.30	86.28	29.37
	Oct	1.10	41.44	27.29	0.70	56.44	37.29		Oct	0.60	41.44	27.29	0.30	86.24	28.29

	Nov	1.10	41.21	23.51	0.70	56.21	33.51		Nov	0.60	41.21	23.51	0.30	86.01	24.51
	Dec	1.10	40.96	18.90	0.70	55.96	28.90		Dec	0.60	40.96	18.90	0.30	85.76	19.90
2013	Jan	1.15	40.24	17.45	0.73	55.24	27.45	2013	Jan	0.63	40.24	17.45	0.31	85.04	18.45
	Feb	1.15	40.26	17.10	0.73	55.26	27.10		Feb	0.63	40.26	17.10	0.31	85.06	18.10
	Mar	1.15	40.49	19.14	0.73	55.49	29.14		Mar	0.63	40.49	19.14	0.31	85.29	20.14
	Apr	1.15	40.55	22.24	0.73	55.55	32.24		Apr	0.63	40.55	22.24	0.31	85.35	23.24
	May	1.15	40.43	25.65	0.73	55.43	35.65		May	0.63	40.43	25.65	0.31	85.23	26.65
	Jun	1.15	41.07	26.42	0.73	56.07	36.42		Jun	0.63	41.07	26.42	0.31	85.87	27.42
	Jul	1.15	41.14	29.18	0.73	56.14	39.18		Jul	0.63	41.14	29.18	0.31	85.94	30.18
	Aug	1.15	40.36	28.27	0.73	55.36	38.27		Aug	0.63	40.36	28.27	0.31	85.16	29.27
	Sep	1.15	41.31	28.72	0.73	56.31	38.72		Sep	0.63	41.31	28.72	0.31	86.11	29.72
	Oct	1.15	41.63	26.33	0.73	56.63	36.33		Oct	0.63	41.63	26.33	0.31	86.43	27.33
	Nov	1.15	41.26	23.02	0.73	56.26	33.02		Nov	0.63	41.26	23.02	0.31	86.06	24.02
	Dec	1.15	40.98	20.08	0.73	55.98	30.08		Dec	0.63	40.98	20.08	0.31	85.78	21.08
2014	Jan	1.20	40.42	16.89	0.76	55.42	26.89	2014	Jan	0.65	40.42	16.89	0.33	85.22	17.89
	Feb	1.20	40.60	17.07	0.76	55.60	27.07		Feb	0.65	40.60	17.07	0.33	85.40	18.07
	Mar	1.20	40.36	19.36	0.76	55.36	29.36		Mar	0.65	40.36	19.36	0.33	85.16	20.36
	Apr	1.20	40.52	22.09	0.76	55.52	32.09		Apr	0.65	40.52	22.09	0.33	85.32	23.09
	May	1.20	40.46	25.27	0.76	55.46	35.27		May	0.65	40.46	25.27	0.33	85.26	26.27
	Jun	1.20	40.78	27.43	0.76	55.78	37.43		Jun	0.65	40.78	27.43	0.33	85.58	28.43
	Jul	1.20	41.05	29.51	0.76	56.05	39.51		Jul	0.65	41.05	29.51	0.33	85.85	30.51
	Aug	1.20	41.12	28.97	0.76	56.12	38.97		Aug	0.65	41.12	28.97	0.33	85.92	29.97
	Sep	1.20	41.11	28.80	0.76	56.10	38.80		Sep	0.65	41.11	28.80	0.33	85.90	29.80
	Oct	1.20	41.19	27.22	0.76	56.19	37.22		Oct	0.65	41.19	27.22	0.33	85.99	28.22
	Nov	1.20	41.24	23.11	0.76	56.24	33.11		Nov	0.65	41.24	23.11	0.33	86.04	24.11
	Dec	1.20	41.20	18.83	0.76	56.20	28.83		Dec	0.65	41.20	18.83	0.33	86.00	19.83
2015	Jan	1.25	40.97	16.53	0.80	55.97	26.53	2015	Jan	0.68	40.97	16.53	0.34	85.77	17.53
	Feb	1.25	40.92	16.87	0.80	55.92	26.87		Feb	0.68	40.92	16.87	0.34	85.72	17.87
	Mar	1.25	40.36	19.36	0.80	55.36	29.36		Mar	0.68	40.36	19.36	0.34	85.16	20.36
	Apr	1.25	41.09	22.13	0.80	56.09	32.13		Apr	0.68	41.09	22.13	0.34	85.89	23.13
	May	1.25	41.16	24.96	0.80	56.16	34.96		May	0.68	41.16	24.96	0.34	85.96	25.96
	Jun	1.25	41.40	27.45	0.80	56.40	37.45		Jun	0.68	41.40	27.45	0.34	86.20	28.45
	Jul	1.25	41.58	28.46	0.80	56.58	38.46		Jul	0.68	41.58	28.46	0.34	86.38	29.46
	Aug	1.25	41.18	30.07	0.80	56.18	40.07		Aug	0.68	41.18	30.07	0.34	85.98	31.07
	Sep	1.25	41.31	28.84	0.80	56.31	38.84		Sep	0.68	41.31	28.84	0.34	86.11	29.84
	Oct	1.25	41.32	27.54	0.80	56.32	37.54		Oct	0.68	41.32	27.54	0.34	86.12	28.54
	Nov	1.25	41.60	23.31	0.80	56.60	33.31		Nov	0.68	41.60	23.31	0.34	86.40	24.31
	Dec	1.25	41.12	19.80	0.80	56.12	29.80		Dec	0.68	41.12	19.80	0.34	85.92	20.80

Qatar (Ras Funats) MSF		Inflow			Outflow			Qatar (Ras Funats) MED		Inflow			Outflow		
		F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)			F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)
2004	Jan	28.70	39.42	17.22	21.50	49.42	27.22	2004	Jan	1.21	39.42	17.22	0.83	54.42	27.22
	Feb	28.70	38.73	17.06	21.50	48.73	27.06		Feb	1.21	38.73	17.06	0.83	53.73	27.06
	Mar	28.70	39.43	18.56	21.50	49.43	28.56		Mar	1.21	39.43	18.56	0.83	54.43	28.56
	Apr	28.70	39.34	22.52	21.50	49.34	32.52		Apr	1.21	39.34	22.52	0.83	54.34	32.52
	May	28.70	40.24	25.80	21.50	50.24	35.80		May	1.21	40.24	25.80	0.83	55.24	35.80
	Jun	28.70	39.28	27.10	21.50	49.28	37.10		Jun	1.21	39.28	27.10	0.83	54.28	37.10
	Jul	28.70	39.53	29.45	21.50	49.53	39.45		Jul	1.21	39.53	29.45	0.83	54.53	39.45
	Aug	28.70	39.69	30.17	21.50	49.69	40.17		Aug	1.21	39.69	30.17	0.83	54.69	40.17
	Sep	28.70	39.83	28.95	21.50	49.83	38.95		Sep	1.21	39.83	28.95	0.83	54.83	38.95
	Oct	28.70	40.29	28.26	21.50	50.29	38.26		Oct	1.21	40.29	28.26	0.83	55.29	38.26
	Nov	28.70	39.40	24.76	21.50	49.40	34.76		Nov	1.21	39.40	24.76	0.83	54.40	34.76
	Dec	28.70	41.16	18.77	21.50	51.16	28.77		Dec	1.21	41.16	18.77	0.83	56.16	28.77
2005	Jan	29.70	40.09	15.99	22.25	50.09	25.99	2005	Jan	1.30	40.09	15.99	0.89	55.09	25.99
	Feb	29.70	39.02	16.58	22.25	49.02	26.58		Feb	1.30	39.02	16.58	0.89	54.02	26.58
	Mar	29.70	39.11	18.90	22.25	49.11	28.90		Mar	1.30	39.11	18.90	0.89	54.11	28.90
	Apr	29.70	39.72	21.94	22.25	49.72	31.94		Apr	1.30	39.72	21.94	0.89	54.72	31.94
	May	29.70	39.27	25.81	22.25	49.27	35.81		May	1.30	39.27	25.81	0.89	54.27	35.81
	Jun	29.70	40.86	28.59	22.25	50.86	38.59		Jun	1.30	40.86	28.59	0.89	55.86	38.59
	Jul	29.70	40.13	28.59	22.25	50.13	38.59		Jul	1.30	40.13	28.59	0.89	55.13	38.59
	Aug	29.70	40.02	30.44	22.25	50.02	40.44		Aug	1.30	40.02	30.44	0.89	55.02	40.44

	Sep	29.70	39.75	30.01	22.25	49.75	40.01		Sep	1.30	39.75	30.01	0.89	54.75	40.01
	Oct	29.70	40.66	27.05	22.25	50.66	37.05		Oct	1.30	40.66	27.05	0.89	55.66	37.05
	Nov	29.70	39.97	24.10	22.25	49.97	34.10		Nov	1.30	39.97	24.10	0.89	54.97	34.10
	Dec	29.70	39.26	20.62	22.25	49.26	30.62		Dec	1.30	39.26	20.62	0.89	54.26	30.62
2006	Jan	30.70	40.66	16.34	23.00	50.66	26.34	2006	Jan	1.38	40.66	16.34	0.95	55.66	26.34
	Feb	30.70	40.49	17.08	23.00	49.42	26.59		Feb	1.38	40.49	17.08	0.95	54.42	26.59
	Mar	30.70	40.28	18.92	23.00	50.28	28.92		Mar	1.38	40.28	18.92	0.95	55.28	28.92
	Apr	30.70	39.09	22.19	23.00	49.09	32.19		Apr	1.38	39.09	22.19	0.95	54.09	32.19
	May	30.70	38.63	25.22	23.00	48.63	35.22		May	1.38	38.63	25.22	0.95	53.63	35.22
	Jun	30.70	40.26	27.44	23.00	50.26	37.44		Jun	1.38	40.26	27.44	0.95	55.26	37.44
	Jul	30.70	41.45	29.15	23.00	51.45	39.15		Jul	1.38	41.45	29.15	0.95	56.45	39.15
	Aug	30.70	39.54	29.73	23.00	49.54	39.73		Aug	1.38	39.54	29.73	0.95	54.54	39.73
	Sep	30.70	39.63	30.12	23.00	49.63	40.12		Sep	1.38	39.63	30.12	0.95	54.63	40.12
	Oct	30.70	41.72	27.16	23.00	51.72	37.16		Oct	1.38	41.72	27.16	0.95	56.72	37.16
	Nov	30.70	39.18	24.59	23.00	49.18	34.59		Nov	1.38	39.18	24.59	0.95	54.18	34.59
	Dec	30.70	39.65	20.53	23.00	49.65	30.53		Dec	1.38	39.65	20.53	0.95	54.65	30.53
2007	Jan	31.70	40.19	16.06	23.75	50.19	26.06	2007	Jan	1.47	40.19	16.06	1.00	55.19	26.06
	Feb	31.70	38.99	16.70	23.75	48.99	26.70		Feb	1.47	38.99	16.70	1.00	53.99	26.70
	Mar	31.70	39.63	18.85	23.75	49.63	28.85		Mar	1.47	39.63	18.85	1.00	54.63	28.85
	Apr	31.70	38.90	21.74	23.75	48.90	31.74		Apr	1.47	38.90	21.74	1.00	53.90	31.74
	May	31.70	38.64	25.11	23.75	48.64	35.11		May	1.47	38.64	25.11	1.00	53.64	35.11
	Jun	31.70	40.04	28.47	23.75	50.04	38.47		Jun	1.47	40.04	28.47	1.00	55.04	38.47
	Jul	31.70	39.64	29.69	23.75	49.64	39.69		Jul	1.47	39.64	29.69	1.00	54.64	39.69
	Aug	31.70	39.58	30.02	23.75	49.58	40.02		Aug	1.47	39.58	30.02	1.00	54.58	40.02
	Sep	31.70	39.55	29.88	23.75	49.55	39.88		Sep	1.47	39.55	29.88	1.00	54.55	39.88
	Oct	31.70	40.67	27.92	23.75	50.67	37.92		Oct	1.47	40.67	27.92	1.00	55.67	37.92
	Nov	31.70	40.10	24.89	23.75	50.10	34.89		Nov	1.47	40.10	24.89	1.00	55.10	34.89
	Dec	31.70	40.68	19.26	23.75	50.68	29.26		Dec	1.47	40.68	19.26	1.00	55.68	29.26
2008	Jan	32.70	39.46	17.21	24.50	49.46	27.21	2008	Jan	1.55	39.46	17.21	1.06	54.46	27.21
	Feb	32.70	39.32	16.76	24.50	49.32	26.76		Feb	1.55	39.32	16.76	1.06	54.32	26.76
	Mar	32.70	39.34	18.48	24.50	49.34	28.48		Mar	1.55	39.34	18.48	1.06	54.34	28.48
	Apr	32.70	39.03	22.22	24.50	49.03	32.22		Apr	1.55	39.03	22.22	1.06	54.03	32.22
	May	32.70	40.33	26.56	24.50	50.33	36.56		May	1.55	40.33	26.56	1.06	55.33	36.56
	Jun	32.70	39.96	28.29	24.50	49.96	38.29		Jun	1.55	39.96	28.29	1.06	54.96	38.29
	Jul	32.70	39.08	29.27	24.50	49.08	39.27		Jul	1.55	39.08	29.27	1.06	54.08	39.27
	Aug	32.70	40.21	29.64	24.50	50.21	39.64		Aug	1.55	40.21	29.64	1.06	55.21	39.64
	Sep	32.70	40.57	29.68	24.50	50.57	39.68		Sep	1.55	40.57	29.68	1.06	55.57	39.68
	Oct	32.70	42.22	26.45	24.50	52.22	36.45		Oct	1.55	42.22	26.45	1.06	57.22	36.45
	Nov	32.70	39.34	24.28	24.50	49.34	34.28		Nov	1.55	39.34	24.28	1.06	54.34	34.28
	Dec	32.70	38.97	20.26	24.50	48.97	30.26		Dec	1.55	38.97	20.26	1.06	53.97	30.26
2009	Jan	33.70	39.50	17.12	25.25	49.50	27.12	2009	Jan	1.64	39.50	17.12	1.12	54.50	27.12
	Feb	33.70	38.30	17.76	25.25	48.30	27.76		Feb	1.64	38.30	17.76	1.12	53.30	27.76
	Mar	33.70	38.56	18.67	25.25	48.56	28.67		Mar	1.64	38.56	18.67	1.12	53.56	28.67
	Apr	33.70	40.16	22.71	25.25	50.16	32.71		Apr	1.64	40.16	22.71	1.12	55.16	32.71
	May	33.70	39.15	25.24	25.25	49.15	35.24		May	1.64	39.15	25.24	1.12	54.15	35.24
	Jun	33.70	40.07	27.98	25.25	50.07	37.98		Jun	1.64	40.07	27.98	1.12	55.07	37.98
	Jul	33.70	41.38	29.92	25.25	51.38	39.92		Jul	1.64	41.38	29.92	1.12	56.38	39.92
	Aug	33.70	39.11	29.09	25.25	49.11	39.09		Aug	1.64	39.11	29.09	1.12	54.11	39.09
	Sep	33.70	38.85	28.56	25.25	48.85	38.56		Sep	1.64	38.85	28.56	1.12	53.85	38.56
	Oct	33.70	40.29	26.13	25.25	50.29	36.13		Oct	1.64	40.29	26.13	1.12	55.29	36.13
	Nov	33.70	39.01	24.69	25.25	49.01	34.69		Nov	1.64	39.01	24.69	1.12	54.01	34.69
	Dec	33.70	39.15	20.19	25.25	49.15	30.19		Dec	1.64	39.15	20.19	1.12	54.15	30.19
2010	Jan	34.70	38.66	18.19	26.00	48.66	28.19	2010	Jan	1.73	38.66	18.19	1.18	53.66	28.19
	Feb	34.70	38.53	17.69	26.00	48.53	27.69		Feb	1.73	38.53	17.69	1.18	53.53	27.69
	Mar	34.70	38.74	19.09	26.00	48.74	29.09		Mar	1.73	38.74	19.09	1.18	53.74	29.09
	Apr	34.70	39.73	21.94	26.00	49.73	31.94		Apr	1.73	39.73	21.94	1.18	54.73	31.94
	May	34.70	38.60	24.78	26.00	48.60	34.78		May	1.73	38.60	24.78	1.18	53.60	34.78
	Jun	34.70	40.03	27.64	26.00	50.03	37.64		Jun	1.73	40.03	27.64	1.18	55.03	37.64
	Jul	34.70	40.82	28.50	26.00	50.82	38.50		Jul	1.73	40.82	28.50	1.18	55.82	38.50
	Aug	34.70	40.24	29.48	26.00	50.24	39.48		Aug	1.73	40.24	29.48	1.18	55.24	39.48
	Sep	34.70	39.45	29.40	26.00	49.45	30.40		Sep	1.73	39.45	29.40	1.18	54.45	39.40
	Oct	34.70	40.19	28.01	26.00	50.19	38.01		Oct	1.73	40.19	28.01	1.18	55.19	38.01
	Nov	34.70	39.64	24.52	26.00	49.64	34.52		Nov	1.73	39.64	24.52	1.18	54.64	34.52
	Dec	34.70	40.28	20.14	26.00	50.28	30.14		Dec	1.73	40.28	20.14	1.18	55.28	30.14

2011	Jan	35.70	39.18	17.28	26.75	49.18	27.28	2011	Jan	1.81	39.18	17.28	1.24	54.18	27.28
	Feb	35.70	38.96	17.07	26.75	48.96	27.07		Feb	1.81	38.96	17.07	1.24	53.96	27.07
	Mar	35.70	39.18	18.78	26.75	49.18	28.78		Mar	1.81	39.18	18.78	1.24	54.18	28.78
	Apr	35.70	39.26	21.65	26.75	49.26	31.65		Apr	1.81	39.26	21.65	1.24	54.26	31.65
	May	35.70	40.07	26.01	26.75	50.07	36.01		May	1.81	40.07	26.01	1.24	55.07	36.01
	Jun	35.70	38.85	27.54	26.75	48.85	37.54		Jun	1.81	38.85	27.54	1.24	53.85	37.54
	Jul	35.70	39.59	28.90	26.75	49.59	38.90		Jul	1.81	39.59	28.90	1.24	54.59	38.90
	Aug	35.70	39.77	30.03	26.75	49.77	40.03		Aug	1.81	39.77	30.03	1.24	54.77	40.03
	Sep	35.70	39.53	29.23	26.75	49.53	39.23		Sep	1.81	39.53	29.23	1.24	54.53	39.23
	Oct	35.70	39.21	27.44	26.75	49.21	37.44		Oct	1.81	39.21	27.44	1.24	54.21	37.44
	Nov	35.70	39.20	24.18	26.75	49.20	34.18		Nov	1.81	39.20	24.18	1.24	54.20	34.18
	Dec	35.70	40.55	19.25	26.75	50.55	29.25		Dec	1.81	40.55	19.25	1.24	55.55	29.25
2012	Jan	36.70	39.60	16.64	27.50	49.60	26.64	2012	Jan	1.90	39.60	16.64	1.30	54.60	26.64
	Feb	36.70	39.18	16.71	27.50	49.18	26.71		Feb	1.90	39.18	16.71	1.30	54.18	26.71
	Mar	36.70	39.19	18.65	27.50	49.19	28.65		Mar	1.90	39.19	18.65	1.30	54.19	28.65
	Apr	36.70	39.31	22.22	27.50	49.31	32.22		Apr	1.90	39.31	22.22	1.30	54.31	32.22
	May	36.70	38.71	25.86	27.50	48.71	35.86		May	1.90	38.71	25.86	1.30	53.71	35.86
	Jun	36.70	40.36	26.99	27.50	50.36	36.99		Jun	1.90	40.36	26.99	1.30	55.36	36.99
	Jul	36.70	39.27	29.59	27.50	49.27	39.59		Jul	1.90	39.27	29.59	1.30	54.27	39.59
	Aug	36.70	38.93	30.12	27.50	48.93	40.12		Aug	1.90	38.93	30.12	1.30	53.93	40.12
	Sep	36.70	39.83	29.09	27.50	49.83	39.09		Sep	1.90	39.83	29.09	1.30	54.83	39.09
	Oct	36.70	39.70	27.58	27.50	49.70	37.58		Oct	1.90	39.70	27.58	1.30	54.70	37.58
	Nov	36.70	39.11	24.59	27.50	49.11	34.59		Nov	1.90	39.11	24.59	1.30	54.11	34.59
	Dec	36.70	39.47	19.86	27.50	49.47	29.86		Dec	1.90	39.47	19.86	1.30	54.47	29.86
2013	Jan	37.70	39.14	17.72	28.25	49.14	27.72	2013	Jan	1.99	39.14	17.72	1.36	54.14	27.72
	Feb	37.70	38.46	17.54	28.25	48.46	27.54		Feb	1.99	38.46	17.54	1.36	53.46	27.54
	Mar	37.70	38.69	18.85	28.25	48.69	28.85		Mar	1.99	38.69	18.85	1.36	53.69	28.85
	Apr	37.70	40.23	22.72	28.25	50.23	32.72		Apr	1.99	40.23	22.72	1.36	55.23	32.72
	May	37.70	38.69	25.32	28.25	48.69	35.32		May	1.99	38.69	25.32	1.36	53.69	35.32
	Jun	37.70	40.83	27.65	28.25	50.83	37.65		Jun	1.99	40.83	27.65	1.36	55.83	37.65
	Jul	37.70	39.50	29.12	28.25	49.50	39.12		Jul	1.99	39.50	29.12	1.36	54.50	39.12
	Aug	37.70	39.77	28.59	28.25	49.77	38.59		Aug	1.99	39.77	28.59	1.36	54.77	38.59
	Sep	37.70	40.65	29.63	28.25	50.65	39.63		Sep	1.99	40.65	29.63	1.36	55.65	39.63
	Oct	37.70	40.25	26.81	28.25	50.25	36.81		Oct	1.99	40.25	26.81	1.36	55.25	36.81
	Nov	37.70	39.56	23.52	28.25	49.56	33.52		Nov	1.99	39.56	23.52	1.36	54.56	33.52
	Dec	37.70	39.51	20.26	28.25	49.51	30.26		Dec	1.99	39.51	20.26	1.36	54.51	30.26
2014	Jan	38.70	38.74	17.63	29.00	48.74	27.63	2014	Jan	2.07	38.74	17.63	1.42	53.74	27.63
	Feb	38.70	39.13	17.13	29.00	49.13	27.13		Feb	2.07	39.13	17.13	1.42	54.13	27.13
	Mar	38.70	38.84	18.87	29.00	48.84	28.87		Mar	2.07	38.84	18.87	1.42	53.84	28.87
	Apr	38.70	38.44	22.03	29.00	48.44	32.03		Apr	2.07	38.44	22.03	1.42	53.44	32.03
	May	38.70	39.70	26.11	29.00	49.70	36.11		May	2.07	39.70	26.11	1.42	54.70	36.11
	Jun	38.70	39.65	28.12	29.00	49.65	38.12		Jun	2.07	39.65	28.12	1.42	54.65	38.12
	Jul	38.70	40.15	29.74	29.00	50.15	39.74		Jul	2.07	40.15	29.74	1.42	55.15	39.74
	Aug	38.70	40.44	29.23	29.00	50.44	39.23		Aug	2.07	40.44	29.23	1.42	55.44	39.23
	Sep	38.70	39.48	29.29	29.00	49.48	39.29		Sep	2.07	39.48	29.29	1.42	54.48	39.29
	Oct	38.70	40.39	27.52	29.00	50.39	37.52		Oct	2.07	40.39	27.52	1.42	55.39	37.52
	Nov	38.70	40.07	24.01	29.00	50.07	34.01		Nov	2.07	40.07	24.01	1.42	55.07	34.01
	Dec	38.70	39.92	19.43	29.00	49.92	29.43		Dec	2.07	39.92	19.43	1.42	54.92	29.43
2015	Jan	39.70	39.39	17.16	29.75	49.39	27.16	2015	Jan	2.16	39.39	17.16	1.48	54.39	27.16
	Feb	39.70	39.02	17.30	29.75	49.02	27.30		Feb	2.16	39.02	17.30	1.48	54.02	27.30
	Mar	39.70	38.84	18.87	29.75	48.84	28.87		Mar	2.16	38.84	18.87	1.48	53.84	28.87
	Apr	39.70	39.11	22.23	29.75	49.11	32.23		Apr	2.16	39.11	22.23	1.48	54.11	32.23
	May	39.70	39.56	24.58	29.75	49.56	34.58		May	2.16	39.56	24.58	1.48	54.56	34.58
	Jun	39.70	39.46	27.87	29.75	49.46	37.87		Jun	2.16	39.46	27.87	1.48	54.46	37.87
	Jul	39.70	39.56	28.86	29.75	49.56	38.86		Jul	2.16	39.56	28.86	1.48	54.56	38.86
	Aug	39.70	39.46	30.49	29.75	49.46	40.49		Aug	2.16	39.46	30.49	1.48	54.46	40.49
	Sep	39.70	39.80	29.73	29.75	49.80	39.73		Sep	2.16	39.80	29.73	1.48	54.80	39.73
	Oct	39.70	40.31	28.13	29.75	50.31	38.13		Oct	2.16	40.31	28.13	1.48	55.31	38.13
	Nov	39.70	39.57	24.23	29.75	49.57	34.23		Nov	2.16	39.57	24.23	1.48	54.57	34.23
	Dec	39.70	39.43	20.16	29.75	49.43	30.16		Dec	2.16	39.43	20.16	1.48	54.43	30.16

Qatar	Inflow	Outflow	Qatar	Inflow	Outflow
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(Ras Funats) RO		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)	(Ras Lafan) MSF		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	1.02	39.42	17.22	0.51	84.22	18.22	2004	Jan	13.49	39.42	17.22	10.12	49.42	27.22
	Feb	1.02	38.73	17.06	0.51	83.53	18.06		Feb	13.49	38.73	17.06	10.12	48.73	27.06
	Mar	1.02	39.43	18.56	0.51	84.23	19.56		Mar	13.49	39.43	18.56	10.12	49.43	28.56
	Apr	1.02	39.34	22.52	0.51	84.14	23.52		Apr	13.49	39.34	22.52	10.12	49.34	32.52
	May	1.02	40.24	25.80	0.51	85.04	26.80		May	13.49	40.24	25.80	10.12	50.24	35.80
	Jun	1.02	39.28	27.10	0.51	84.08	28.10		Jun	13.49	39.28	27.10	10.12	49.28	37.10
	Jul	1.02	39.53	29.45	0.51	84.33	30.45		Jul	13.49	39.53	29.45	10.12	49.53	39.45
	Aug	1.02	39.69	30.17	0.51	84.49	31.17		Aug	13.49	39.69	30.17	10.12	49.69	40.17
	Sep	1.02	39.83	28.95	0.51	84.63	29.95		Sep	13.49	39.83	28.95	10.12	49.83	38.95
	Oct	1.02	40.29	28.26	0.51	85.09	29.26		Oct	13.49	40.29	28.26	10.12	50.29	38.26
	Nov	1.02	39.40	24.76	0.51	84.20	25.76		Nov	13.49	39.40	24.76	10.12	49.40	34.76
	Dec	1.02	41.16	18.77	0.51	85.96	19.77		Dec	13.49	41.16	18.77	10.12	51.16	28.77
2005	Jan	1.09	40.09	15.99	0.55	84.89	16.99	2005	Jan	14.45	40.09	15.99	10.84	50.09	25.99
	Feb	1.09	39.02	16.58	0.55	83.82	17.58		Feb	14.45	39.02	16.58	10.84	49.02	26.58
	Mar	1.09	39.11	18.90	0.55	83.91	19.90		Mar	14.45	39.11	18.90	10.84	49.11	28.90
	Apr	1.09	39.72	21.94	0.55	84.52	22.94		Apr	14.45	39.72	21.94	10.84	49.72	31.94
	May	1.09	39.27	25.81	0.55	84.07	26.81		May	14.45	39.27	25.81	10.84	49.27	35.81
	Jun	1.09	40.86	28.59	0.55	85.66	29.59		Jun	14.45	40.86	28.59	10.84	50.86	38.59
	Jul	1.09	40.13	28.59	0.55	84.93	29.59		Jul	14.45	40.13	28.59	10.84	50.13	38.59
	Aug	1.09	40.02	30.44	0.55	84.82	31.44		Aug	14.45	40.02	30.44	10.84	50.02	40.44
	Sep	1.09	39.75	30.01	0.55	84.55	31.01		Sep	14.45	39.75	30.01	10.84	49.75	40.01
	Oct	1.09	40.66	27.05	0.55	85.46	28.05		Oct	14.45	40.66	27.05	10.84	50.66	37.05
	Nov	1.09	39.97	24.10	0.55	84.77	25.10		Nov	14.45	39.97	24.10	10.84	49.97	34.10
	Dec	1.09	39.26	20.62	0.55	84.06	21.62		Dec	14.45	39.26	20.62	10.84	49.26	30.62
2006	Jan	1.16	40.66	16.34	0.58	85.46	17.34	2006	Jan	15.42	40.66	16.34	11.56	50.66	26.34
	Feb	1.16	40.49	17.08	0.58	84.22	17.59		Feb	15.42	40.49	17.08	11.56	49.42	26.59
	Mar	1.16	40.28	18.92	0.58	85.08	19.92		Mar	15.42	40.28	18.92	11.56	50.28	28.92
	Apr	1.16	39.09	22.19	0.58	83.89	23.19		Apr	15.42	39.09	22.19	11.56	49.09	32.19
	May	1.16	38.63	25.22	0.58	83.43	26.22		May	15.42	38.63	25.22	11.56	48.63	35.22
	Jun	1.16	40.26	27.44	0.58	85.06	28.44		Jun	15.42	40.26	27.44	11.56	50.26	37.44
	Jul	1.16	41.45	29.15	0.58	86.25	30.15		Jul	15.42	41.45	29.15	11.56	51.45	39.15
	Aug	1.16	39.54	29.73	0.58	84.34	30.73		Aug	15.42	39.54	29.73	11.56	49.54	39.73
	Sep	1.16	39.63	30.12	0.58	84.43	31.12		Sep	15.42	39.63	30.12	11.56	49.63	40.12
	Oct	1.16	41.72	27.16	0.58	86.52	28.16		Oct	15.42	41.72	27.16	11.56	51.72	37.16
	Nov	1.16	39.18	24.59	0.58	83.98	25.59		Nov	15.42	39.18	24.59	11.56	49.18	34.59
	Dec	1.16	39.65	20.53	0.58	84.45	21.53		Dec	15.42	39.65	20.53	11.56	49.65	30.53
2007	Jan	1.24	40.19	16.06	0.62	84.99	17.06	2007	Jan	16.38	40.19	16.06	12.29	50.19	26.06
	Feb	1.24	38.99	16.70	0.62	83.79	17.70		Feb	16.38	38.99	16.70	12.29	48.99	26.70
	Mar	1.24	39.63	18.85	0.62	84.43	19.85		Mar	16.38	39.63	18.85	12.29	49.63	28.85
	Apr	1.24	38.90	21.74	0.62	83.70	22.74		Apr	16.38	38.90	21.74	12.29	48.90	31.74
	May	1.24	38.64	25.11	0.62	83.44	26.11		May	16.38	38.64	25.11	12.29	48.64	35.11
	Jun	1.24	40.04	28.47	0.62	84.84	29.47		Jun	16.38	40.04	28.47	12.29	50.04	38.47
	Jul	1.24	39.64	29.69	0.62	84.44	30.69		Jul	16.38	39.64	29.69	12.29	49.64	39.69
	Aug	1.24	39.58	30.02	0.62	84.38	31.02		Aug	16.38	39.58	30.02	12.29	49.58	40.02
	Sep	1.24	39.55	29.88	0.62	84.35	30.88		Sep	16.38	39.55	29.88	12.29	49.55	39.88
	Oct	1.24	40.67	27.92	0.62	85.47	28.92		Oct	16.38	40.67	27.92	12.29	50.67	37.92
	Nov	1.24	40.10	24.89	0.62	84.90	25.89		Nov	16.38	40.10	24.89	12.29	50.10	34.89
	Dec	1.24	40.68	19.26	0.62	85.48	20.26		Dec	16.38	40.68	19.26	12.29	50.68	29.26
2008	Jan	1.31	39.46	17.21	0.65	84.26	18.21	2008	Jan	17.35	39.46	17.21	13.01	49.46	27.21
	Feb	1.31	39.32	16.76	0.65	84.12	17.76		Feb	17.35	39.32	16.76	13.01	49.32	26.76
	Mar	1.31	39.34	18.48	0.65	84.14	19.48		Mar	17.35	39.34	18.48	13.01	49.34	28.48
	Apr	1.31	39.03	22.22	0.65	83.83	23.22		Apr	17.35	39.03	22.22	13.01	49.03	32.22
	May	1.31	40.33	26.56	0.65	85.13	27.56		May	17.35	40.33	26.56	13.01	50.33	36.56
	Jun	1.31	39.96	28.29	0.65	84.76	29.29		Jun	17.35	39.96	28.29	13.01	49.96	38.29
	Jul	1.31	39.08	29.27	0.65	83.88	30.27		Jul	17.35	39.08	29.27	13.01	49.08	39.27
	Aug	1.31	40.21	29.64	0.65	85.01	30.64		Aug	17.35	40.21	29.64	13.01	50.21	39.64
	Sep	1.31	40.57	29.68	0.65	85.37	30.68		Sep	17.35	40.57	29.68	13.01	50.57	39.68
	Oct	1.31	42.22	26.45	0.65	87.02	27.45		Oct	17.35	42.22	26.45	13.01	52.22	36.45
	Nov	1.31	39.34	24.28	0.65	84.14	25.28		Nov	17.35	39.34	24.28	13.01	49.34	34.28
	Dec	1.31	38.97	20.26	0.65	83.77	21.26		Dec	17.35	38.97	20.26	13.01	48.97	30.26
2009	Jan	1.38	39.50	17.12	0.69	84.30	18.12	2009	Jan	18.31	39.50	17.12	13.73	49.50	27.12
	Feb	1.38	38.30	17.76	0.69	83.10	18.76		Feb	18.31	38.30	17.76	13.73	48.30	27.76

	Mar	1.38	38.56	18.67	0.69	83.36	19.67		Mar	18.31	38.56	18.67	13.73	48.56	28.67
	Apr	1.38	40.16	22.71	0.69	84.96	23.71		Apr	18.31	40.16	22.71	13.73	50.16	32.71
	May	1.38	39.15	25.24	0.69	83.95	26.24		May	18.31	39.15	25.24	13.73	49.15	35.24
	Jun	1.38	40.07	27.98	0.69	84.87	28.98		Jun	18.31	40.07	27.98	13.73	50.07	37.98
	Jul	1.38	41.38	29.92	0.69	86.18	30.92		Jul	18.31	41.38	29.92	13.73	51.38	39.92
	Aug	1.38	39.11	29.09	0.69	83.91	30.09		Aug	18.31	39.11	29.09	13.73	49.11	39.09
	Sep	1.38	38.85	28.56	0.69	83.65	29.56		Sep	18.31	38.85	28.56	13.73	48.85	38.56
	Oct	1.38	40.29	26.13	0.69	85.09	27.13		Oct	18.31	40.29	26.13	13.73	50.29	36.13
	Nov	1.38	39.01	24.69	0.69	83.81	25.69		Nov	18.31	39.01	24.69	13.73	49.01	34.69
	Dec	1.38	39.15	20.19	0.69	83.95	21.19		Dec	18.31	39.15	20.19	13.73	49.15	30.19
2010	Jan	1.45	38.66	18.19	0.73	83.46	19.19	2010	Jan	19.27	38.66	18.19	14.45	48.66	28.19
	Feb	1.45	38.53	17.69	0.73	83.33	18.69		Feb	19.27	38.53	17.69	14.45	48.53	27.69
	Mar	1.45	38.74	19.09	0.73	83.54	20.09		Mar	19.27	38.74	19.09	14.45	48.74	29.09
	Apr	1.45	39.73	21.94	0.73	84.53	22.94		Apr	19.27	39.73	21.94	14.45	49.73	31.94
	May	1.45	38.60	24.78	0.73	83.40	25.78		May	19.27	38.60	24.78	14.45	48.60	34.78
	Jun	1.45	40.03	27.64	0.73	84.83	28.64		Jun	19.27	40.03	27.64	14.45	50.03	37.64
	Jul	1.45	40.82	28.50	0.73	85.62	29.50		Jul	19.27	40.82	28.50	14.45	50.82	38.50
	Aug	1.45	40.24	29.48	0.73	85.04	30.48		Aug	19.27	40.24	29.48	14.45	50.24	39.48
	Sep	1.45	39.45	29.40	0.73	84.25	30.40		Sep	19.27	39.45	29.40	14.45	49.45	30.40
	Oct	1.45	40.19	28.01	0.73	84.99	29.01		Oct	19.27	40.19	28.01	14.45	50.19	38.01
	Nov	1.45	39.64	24.52	0.73	84.44	25.52		Nov	19.27	39.64	24.52	14.45	49.64	34.52
	Dec	1.45	40.28	20.14	0.73	85.08	21.14		Dec	19.27	40.28	20.14	14.45	50.28	30.14
2011	Jan	1.53	39.18	17.28	0.76	83.98	18.28	2011	Jan	20.24	39.18	17.28	15.18	49.18	27.28
	Feb	1.53	38.96	17.07	0.76	83.76	18.07		Feb	20.24	38.96	17.07	15.18	48.96	27.07
	Mar	1.53	39.18	18.78	0.76	83.98	19.78		Mar	20.24	39.18	18.78	15.18	49.18	28.78
	Apr	1.53	39.26	21.65	0.76	84.06	22.65		Apr	20.24	39.26	21.65	15.18	49.26	31.65
	May	1.53	40.07	26.01	0.76	84.87	27.01		May	20.24	40.07	26.01	15.18	50.07	36.01
	Jun	1.53	38.85	27.54	0.76	83.65	28.54		Jun	20.24	38.85	27.54	15.18	48.85	37.54
	Jul	1.53	39.59	28.90	0.76	84.39	29.90		Jul	20.24	39.59	28.90	15.18	49.59	38.90
	Aug	1.53	39.77	30.03	0.76	84.57	31.03		Aug	20.24	39.77	30.03	15.18	49.77	40.03
	Sep	1.53	39.53	29.23	0.76	84.33	30.23		Sep	20.24	39.53	29.23	15.18	49.53	39.23
	Oct	1.53	39.21	27.44	0.76	84.01	28.44		Oct	20.24	39.21	27.44	15.18	49.21	37.44
	Nov	1.53	39.20	24.18	0.76	84.00	25.18		Nov	20.24	39.20	24.18	15.18	49.20	34.18
	Dec	1.53	40.55	19.25	0.76	85.35	20.25		Dec	20.24	40.55	19.25	15.18	50.55	29.25
2012	Jan	1.60	39.60	16.64	0.80	84.40	17.64	2012	Jan	21.20	39.60	16.64	15.90	49.60	26.64
	Feb	1.60	39.18	16.71	0.80	83.98	17.71		Feb	21.20	39.18	16.71	15.90	49.18	26.71
	Mar	1.60	39.19	18.65	0.80	83.99	19.65		Mar	21.20	39.19	18.65	15.90	49.19	28.65
	Apr	1.60	39.31	22.22	0.80	84.11	23.22		Apr	21.20	39.31	22.22	15.90	49.31	32.22
	May	1.60	38.71	25.86	0.80	83.51	26.86		May	21.20	38.71	25.86	15.90	48.71	35.86
	Jun	1.60	40.36	26.99	0.80	85.16	27.99		Jun	21.20	40.36	26.99	15.90	50.36	36.99
	Jul	1.60	39.27	29.59	0.80	84.07	30.59		Jul	21.20	39.27	29.59	15.90	49.27	39.59
	Aug	1.60	38.93	30.12	0.80	83.73	31.12		Aug	21.20	38.93	30.12	15.90	48.93	40.12
	Sep	1.60	39.83	29.09	0.80	84.63	30.09		Sep	21.20	39.83	29.09	15.90	49.83	39.09
	Oct	1.60	39.70	27.58	0.80	84.50	28.58		Oct	21.20	39.70	27.58	15.90	49.70	37.58
	Nov	1.60	39.11	24.59	0.80	83.91	25.59		Nov	21.20	39.11	24.59	15.90	49.11	34.59
	Dec	1.60	39.47	19.86	0.80	84.27	20.86		Dec	21.20	39.47	19.86	15.90	49.47	29.86
2013	Jan	1.67	39.14	17.72	0.84	83.94	18.72	2013	Jan	22.16	39.14	17.72	16.62	49.14	27.72
	Feb	1.67	38.46	17.54	0.84	83.26	18.54		Feb	22.16	38.46	17.54	16.62	48.46	27.54
	Mar	1.67	38.69	18.85	0.84	83.49	19.85		Mar	22.16	38.69	18.85	16.62	48.69	28.85
	Apr	1.67	40.23	22.72	0.84	85.03	23.72		Apr	22.16	40.23	22.72	16.62	50.23	32.72
	May	1.67	38.69	25.32	0.84	83.49	26.32		May	22.16	38.69	25.32	16.62	48.69	35.32
	Jun	1.67	40.83	27.65	0.84	85.63	28.65		Jun	22.16	40.83	27.65	16.62	50.83	37.65
	Jul	1.67	39.50	29.12	0.84	84.30	30.12		Jul	22.16	39.50	29.12	16.62	49.50	39.12
	Aug	1.67	39.77	28.59	0.84	84.57	29.59		Aug	22.16	39.77	28.59	16.62	49.77	38.59
	Sep	1.67	40.65	29.63	0.84	85.45	30.63		Sep	22.16	40.65	29.63	16.62	50.65	39.63
	Oct	1.67	40.25	26.81	0.84	85.05	27.81		Oct	22.16	40.25	26.81	16.62	50.25	36.81
	Nov	1.67	39.56	23.52	0.84	84.36	24.52		Nov	22.16	39.56	23.52	16.62	49.56	33.52
	Dec	1.67	39.51	20.26	0.84	84.31	21.26		Dec	22.16	39.51	20.26	16.62	49.51	30.26
2014	Jan	1.75	38.74	17.63	0.87	83.54	18.63	2014	Jan	23.13	38.74	17.63	17.35	48.74	27.63
	Feb	1.75	39.13	17.13	0.87	83.93	18.13		Feb	23.13	39.13	17.13	17.35	49.13	27.13
	Mar	1.75	38.84	18.87	0.87	83.64	19.87		Mar	23.13	38.84	18.87	17.35	48.84	28.87
	Apr	1.75	38.44	22.03	0.87	83.24	23.03		Apr	23.13	38.44	22.03	17.35	48.44	32.03
	May	1.75	39.70	26.11	0.87	84.50	27.11		May	23.13	39.70	26.11	17.35	49.70	36.11
	Jun	1.75	39.65	28.12	0.87	84.45	29.12		Jun	23.13	39.65	28.12	17.35	49.65	38.12

	Jul	1.75	40.15	29.74	0.87	84.95	30.74		Jul	23.13	40.15	29.74	17.35	50.15	39.74
	Aug	1.75	40.44	29.23	0.87	85.24	30.23		Aug	23.13	40.44	29.23	17.35	50.44	39.23
	Sep	1.75	39.48	29.29	0.87	84.28	30.29		Sep	23.13	39.48	29.29	17.35	49.48	39.29
	Oct	1.75	40.39	27.52	0.87	85.19	28.52		Oct	23.13	40.39	27.52	17.35	50.39	37.52
	Nov	1.75	40.07	24.01	0.87	84.87	25.01		Nov	23.13	40.07	24.01	17.35	50.07	34.01
	Dec	1.75	39.92	19.43	0.87	84.72	20.43		Dec	23.13	39.92	19.43	17.35	49.92	29.43
	Jan	1.82	39.39	17.16	0.91	84.19	18.16		Jan	24.09	39.39	17.16	18.07	49.39	27.16
	Feb	1.82	39.02	17.30	0.91	83.82	18.30		Feb	24.09	39.02	17.30	18.07	49.02	27.30
	Mar	1.82	38.84	18.87	0.91	83.64	19.87		Mar	24.09	38.84	18.87	18.07	48.84	28.87
	Apr	1.82	39.11	22.23	0.91	83.91	23.23		Apr	24.09	39.11	22.23	18.07	49.11	32.23
	May	1.82	39.56	24.58	0.91	84.36	25.58		May	24.09	39.56	24.58	18.07	49.56	34.58
	Jun	1.82	39.46	27.87	0.91	84.26	28.87		Jun	24.09	39.46	27.87	18.07	49.46	37.87
2015	Jul	1.82	39.56	28.86	0.91	84.36	29.86	2015	Jul	24.09	39.56	28.86	18.07	49.56	38.86
	Aug	1.82	39.46	30.49	0.91	84.26	31.49		Aug	24.09	39.46	30.49	18.07	49.46	40.49
	Sep	1.82	39.80	29.73	0.91	84.60	30.73		Sep	24.09	39.80	29.73	18.07	49.80	39.73
	Oct	1.82	40.31	28.13	0.91	85.11	29.13		Oct	24.09	40.31	28.13	18.07	50.31	38.13
	Nov	1.82	39.57	24.23	0.91	84.37	25.23		Nov	24.09	39.57	24.23	18.07	49.57	34.23
	Dec	1.82	39.43	20.16	0.91	84.23	21.16		Dec	24.09	39.43	20.16	18.07	49.43	30.16

Qatar (Ras Lafan) MED		Inflow			Outflow			Qatar (Ras Lafan) RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	15.85	39.42	17.22	10.56	54.42	27.22	2004	Jan	3.44	39.42	17.22	1.72	84.22	18.22
	Feb	15.85	38.73	17.06	10.56	53.73	27.06		Feb	3.44	38.73	17.06	1.72	83.53	18.06
	Mar	15.85	39.43	18.56	10.56	54.43	28.56		Mar	3.44	39.43	18.56	1.72	84.23	19.56
	Apr	15.85	39.34	22.52	10.56	54.34	32.52		Apr	3.44	39.34	22.52	1.72	84.14	23.52
	May	15.85	40.24	25.80	10.56	55.24	35.80		May	3.44	40.24	25.80	1.72	85.04	26.80
	Jun	15.85	39.28	27.10	10.56	54.28	37.10		Jun	3.44	39.28	27.10	1.72	84.08	28.10
	Jul	15.85	39.53	29.45	10.56	54.53	39.45		Jul	3.44	39.53	29.45	1.72	84.33	30.45
	Aug	15.85	39.69	30.17	10.56	54.69	40.17		Aug	3.44	39.69	30.17	1.72	84.49	31.17
	Sep	15.85	39.83	28.95	10.56	54.83	38.95		Sep	3.44	39.83	28.95	1.72	84.63	29.95
	Oct	15.85	40.29	28.26	10.56	55.29	38.26		Oct	3.44	40.29	28.26	1.72	85.09	29.26
	Nov	15.85	39.40	24.76	10.56	54.40	34.76		Nov	3.44	39.40	24.76	1.72	84.20	25.76
	Dec	15.85	41.16	18.77	10.56	56.16	28.77		Dec	3.44	41.16	18.77	1.72	85.96	19.77
2005	Jan	16.98	40.09	15.99	11.32	55.09	25.99	2005	Jan	3.68	40.09	15.99	1.84	84.89	16.99
	Feb	16.98	39.02	16.58	11.32	54.02	26.58		Feb	3.68	39.02	16.58	1.84	83.82	17.58
	Mar	16.98	39.11	18.90	11.32	54.11	28.90		Mar	3.68	39.11	18.90	1.84	83.91	19.90
	Apr	16.98	39.72	21.94	11.32	54.72	31.94		Apr	3.68	39.72	21.94	1.84	84.52	22.94
	May	16.98	39.27	25.81	11.32	54.27	35.81		May	3.68	39.27	25.81	1.84	84.07	26.81
	Jun	16.98	40.86	28.59	11.32	55.86	38.59		Jun	3.68	40.86	28.59	1.84	85.66	29.59
	Jul	16.98	40.13	28.59	11.32	55.13	38.59		Jul	3.68	40.13	28.59	1.84	84.93	29.59
	Aug	16.98	40.02	30.44	11.32	55.02	40.44		Aug	3.68	40.02	30.44	1.84	84.82	31.44
	Sep	16.98	39.75	30.01	11.32	54.75	40.01		Sep	3.68	39.75	30.01	1.84	84.55	31.01
	Oct	16.98	40.66	27.05	11.32	55.66	37.05		Oct	3.68	40.66	27.05	1.84	85.46	28.05
	Nov	16.98	39.97	24.10	11.32	54.97	34.10		Nov	3.68	39.97	24.10	1.84	84.77	25.10
	Dec	16.98	39.26	20.62	11.32	54.26	30.62		Dec	3.68	39.26	20.62	1.84	84.06	21.62
2006	Jan	18.11	40.66	16.34	12.07	55.66	26.34	2006	Jan	3.93	40.66	16.34	1.96	85.46	17.34
	Feb	18.11	40.49	17.08	12.07	54.42	26.59		Feb	3.93	40.49	17.08	1.96	84.22	17.59
	Mar	18.11	40.28	18.92	12.07	55.28	28.92		Mar	3.93	40.28	18.92	1.96	85.08	19.92
	Apr	18.11	39.09	22.19	12.07	54.09	32.19		Apr	3.93	39.09	22.19	1.96	83.89	23.19
	May	18.11	38.63	25.22	12.07	53.63	35.22		May	3.93	38.63	25.22	1.96	83.43	26.22
	Jun	18.11	40.26	27.44	12.07	55.26	37.44		Jun	3.93	40.26	27.44	1.96	85.06	28.44
	Jul	18.11	41.45	29.15	12.07	56.45	39.15		Jul	3.93	41.45	29.15	1.96	86.25	30.15
	Aug	18.11	39.54	29.73	12.07	54.54	39.73		Aug	3.93	39.54	29.73	1.96	84.34	30.73
	Sep	18.11	39.63	30.12	12.07	54.63	40.12		Sep	3.93	39.63	30.12	1.96	84.43	31.12
	Oct	18.11	41.72	27.16	12.07	56.72	37.16		Oct	3.93	41.72	27.16	1.96	86.52	28.16
	Nov	18.11	39.18	24.59	12.07	54.18	34.59		Nov	3.93	39.18	24.59	1.96	83.98	25.59
	Dec	18.11	39.65	20.53	12.07	54.65	30.53		Dec	3.93	39.65	20.53	1.96	84.45	21.53
2007	Jan	19.24	40.19	16.06	12.83	55.19	26.06	2007	Jan	4.17	40.19	16.06	2.09	84.99	17.06
	Feb	19.24	38.99	16.70	12.83	53.99	26.70		Feb	4.17	38.99	16.70	2.09	83.79	17.70
	Mar	19.24	39.63	18.85	12.83	54.63	28.85		Mar	4.17	39.63	18.85	2.09	84.43	19.85
	Apr	19.24	38.90	21.74	12.83	53.90	31.74		Apr	4.17	38.90	21.74	2.09	83.70	22.74

	May	19.24	38.64	25.11	12.83	53.64	35.11		May	4.17	38.64	25.11	2.09	83.44	26.11
	Jun	19.24	40.04	28.47	12.83	55.04	38.47		Jun	4.17	40.04	28.47	2.09	84.84	29.47
	Jul	19.24	39.64	29.69	12.83	54.64	39.69		Jul	4.17	39.64	29.69	2.09	84.44	30.69
	Aug	19.24	39.58	30.02	12.83	54.58	40.02		Aug	4.17	39.58	30.02	2.09	84.38	31.02
	Sep	19.24	39.55	29.88	12.83	54.55	39.88		Sep	4.17	39.55	29.88	2.09	84.35	30.88
	Oct	19.24	40.67	27.92	12.83	55.67	37.92		Oct	4.17	40.67	27.92	2.09	85.47	28.92
	Nov	19.24	40.10	24.89	12.83	55.10	34.89		Nov	4.17	40.10	24.89	2.09	84.90	25.89
2008	Dec	19.24	40.68	19.26	12.83	55.68	29.26	2008	Dec	4.17	40.68	19.26	2.09	85.48	20.26
	Jan	20.37	39.46	17.21	13.58	54.46	27.21		Jan	4.42	39.46	17.21	2.21	84.26	18.21
	Feb	20.37	39.32	16.76	13.58	54.32	26.76		Feb	4.42	39.32	16.76	2.21	84.12	17.76
	Mar	20.37	39.34	18.48	13.58	54.34	28.48		Mar	4.42	39.34	18.48	2.21	84.14	19.48
	Apr	20.37	39.03	22.22	13.58	54.03	32.22		Apr	4.42	39.03	22.22	2.21	83.83	23.22
	May	20.37	40.33	26.56	13.58	55.33	36.56		May	4.42	40.33	26.56	2.21	85.13	27.56
	Jun	20.37	39.96	28.29	13.58	54.96	38.29		Jun	4.42	39.96	28.29	2.21	84.76	29.29
	Jul	20.37	39.08	29.27	13.58	54.08	39.27		Jul	4.42	39.08	29.27	2.21	83.88	30.27
	Aug	20.37	40.21	29.64	13.58	55.21	39.64		Aug	4.42	40.21	29.64	2.21	85.01	30.64
	Sep	20.37	40.57	29.68	13.58	55.57	39.68		Sep	4.42	40.57	29.68	2.21	85.37	30.68
	Oct	20.37	42.22	26.45	13.58	57.22	36.45		Oct	4.42	42.22	26.45	2.21	87.02	27.45
	Nov	20.37	39.34	24.28	13.58	54.34	34.28		Nov	4.42	39.34	24.28	2.21	84.14	25.28
2009	Dec	20.37	38.97	20.26	13.58	53.97	30.26	2009	Dec	4.42	38.97	20.26	2.21	83.77	21.26
	Jan	21.50	39.50	17.12	14.34	54.50	27.12		Jan	4.66	39.50	17.12	2.33	84.30	18.12
	Feb	21.50	38.30	17.76	14.34	53.30	27.76		Feb	4.66	38.30	17.76	2.33	83.10	18.76
	Mar	21.50	38.56	18.67	14.34	53.56	28.67		Mar	4.66	38.56	18.67	2.33	83.36	19.67
	Apr	21.50	40.16	22.71	14.34	55.16	32.71		Apr	4.66	40.16	22.71	2.33	84.96	23.71
	May	21.50	39.15	25.24	14.34	54.15	35.24		May	4.66	39.15	25.24	2.33	83.95	26.24
	Jun	21.50	40.07	27.98	14.34	55.07	37.98		Jun	4.66	40.07	27.98	2.33	84.87	28.98
	Jul	21.50	41.38	29.92	14.34	56.38	39.92		Jul	4.66	41.38	29.92	2.33	86.18	30.92
	Aug	21.50	39.11	29.09	14.34	54.11	39.09		Aug	4.66	39.11	29.09	2.33	83.91	30.09
	Sep	21.50	38.85	28.56	14.34	53.85	38.56		Sep	4.66	38.85	28.56	2.33	83.65	29.56
	Oct	21.50	40.29	26.13	14.34	55.29	36.13		Oct	4.66	40.29	26.13	2.33	85.09	27.13
	Nov	21.50	39.01	24.69	14.34	54.01	34.69		Nov	4.66	39.01	24.69	2.33	83.81	25.69
2010	Dec	21.50	39.15	20.19	14.34	54.15	30.19	2010	Dec	4.66	39.15	20.19	2.33	83.95	21.19
	Jan	22.64	38.66	18.19	15.09	53.66	28.19		Jan	4.91	38.66	18.19	2.45	83.46	19.19
	Feb	22.64	38.53	17.69	15.09	53.53	27.69		Feb	4.91	38.53	17.69	2.45	83.33	18.69
	Mar	22.64	38.74	19.09	15.09	53.74	29.09		Mar	4.91	38.74	19.09	2.45	83.54	20.09
	Apr	22.64	39.73	21.94	15.09	54.73	31.94		Apr	4.91	39.73	21.94	2.45	84.53	22.94
	May	22.64	38.60	24.78	15.09	53.60	34.78		May	4.91	38.60	24.78	2.45	83.40	25.78
	Jun	22.64	40.03	27.64	15.09	55.03	37.64		Jun	4.91	40.03	27.64	2.45	84.83	28.64
	Jul	22.64	40.82	28.50	15.09	55.82	38.50		Jul	4.91	40.82	28.50	2.45	85.62	29.50
	Aug	22.64	40.24	29.48	15.09	55.24	39.48		Aug	4.91	40.24	29.48	2.45	85.04	30.48
	Sep	22.64	39.45	29.40	15.09	54.45	39.40		Sep	4.91	39.45	29.40	2.45	84.25	30.40
	Oct	22.64	40.19	28.01	15.09	55.19	38.01		Oct	4.91	40.19	28.01	2.45	84.99	29.01
	Nov	22.64	39.64	24.52	15.09	54.64	34.52		Nov	4.91	39.64	24.52	2.45	84.44	25.52
2011	Dec	22.64	40.28	20.14	15.09	55.28	30.14	2011	Dec	4.91	40.28	20.14	2.45	85.08	21.14
	Jan	23.77	39.18	17.28	15.85	54.18	27.28		Jan	5.15	39.18	17.28	2.58	83.98	18.28
	Feb	23.77	38.96	17.07	15.85	53.96	27.07		Feb	5.15	38.96	17.07	2.58	83.76	18.07
	Mar	23.77	39.18	18.78	15.85	54.18	28.78		Mar	5.15	39.18	18.78	2.58	83.98	19.78
	Apr	23.77	39.26	21.65	15.85	54.26	31.65		Apr	5.15	39.26	21.65	2.58	84.06	22.65
	May	23.77	40.07	26.01	15.85	55.07	36.01		May	5.15	40.07	26.01	2.58	84.87	27.01
	Jun	23.77	38.85	27.54	15.85	53.85	37.54		Jun	5.15	38.85	27.54	2.58	83.65	28.54
	Jul	23.77	39.59	28.90	15.85	54.59	38.90		Jul	5.15	39.59	28.90	2.58	84.39	29.90
	Aug	23.77	39.77	30.03	15.85	54.77	40.03		Aug	5.15	39.77	30.03	2.58	84.57	31.03
	Sep	23.77	39.53	29.23	15.85	54.53	39.23		Sep	5.15	39.53	29.23	2.58	84.33	30.23
	Oct	23.77	39.21	27.44	15.85	54.21	37.44		Oct	5.15	39.21	27.44	2.58	84.01	28.44
	Nov	23.77	39.20	24.18	15.85	54.20	34.18		Nov	5.15	39.20	24.18	2.58	84.00	25.18
2012	Dec	23.77	40.55	19.25	15.85	55.55	29.25	2012	Dec	5.15	40.55	19.25	2.58	85.35	20.25
	Jan	24.90	39.60	16.64	16.60	54.60	26.64		Jan	5.40	39.60	16.64	2.70	84.40	17.64
	Feb	24.90	39.18	16.71	16.60	54.18	26.71		Feb	5.40	39.18	16.71	2.70	83.98	17.71
	Mar	24.90	39.19	18.65	16.60	54.19	28.65		Mar	5.40	39.19	18.65	2.70	83.99	19.65
	Apr	24.90	39.31	22.22	16.60	54.31	32.22		Apr	5.40	39.31	22.22	2.70	84.11	23.22
	May	24.90	38.71	25.86	16.60	53.71	35.86		May	5.40	38.71	25.86	2.70	83.51	26.86
	Jun	24.90	40.36	26.99	16.60	55.36	36.99		Jun	5.40	40.36	26.99	2.70	85.16	27.99
	Jul	24.90	39.27	29.59	16.60	54.27	39.59		Jul	5.40	39.27	29.59	2.70	84.07	30.59
	Aug	24.90	38.93	30.12	16.60	53.93	40.12		Aug	5.40	38.93	30.12	2.70	83.73	31.12

2013	Sep	24.90	39.83	29.09	16.60	54.83	39.09	2013	Sep	5.40	39.83	29.09	2.70	84.63	30.09
	Oct	24.90	39.70	27.58	16.60	54.70	37.58		Oct	5.40	39.70	27.58	2.70	84.50	28.58
	Nov	24.90	39.11	24.59	16.60	54.11	34.59		Nov	5.40	39.11	24.59	2.70	83.91	25.59
	Dec	24.90	39.47	19.86	16.60	54.47	29.86		Dec	5.40	39.47	19.86	2.70	84.27	20.86
	Jan	26.03	39.14	17.72	17.35	54.14	27.72		Jan	5.65	39.14	17.72	2.82	83.94	18.72
	Feb	26.03	38.46	17.54	17.35	53.46	27.54		Feb	5.65	38.46	17.54	2.82	83.26	18.54
	Mar	26.03	38.69	18.85	17.35	53.69	28.85		Mar	5.65	38.69	18.85	2.82	83.49	19.85
	Apr	26.03	40.23	22.72	17.35	55.23	32.72		Apr	5.65	40.23	22.72	2.82	85.03	23.72
	May	26.03	38.69	25.32	17.35	53.69	35.32		May	5.65	38.69	25.32	2.82	83.49	26.32
	Jun	26.03	40.83	27.65	17.35	55.83	37.65		Jun	5.65	40.83	27.65	2.82	85.63	28.65
	Jul	26.03	39.50	29.12	17.35	54.50	39.12		Jul	5.65	39.50	29.12	2.82	84.30	30.12
	Aug	26.03	39.77	28.59	17.35	54.77	38.59		Aug	5.65	39.77	28.59	2.82	84.57	29.59
2014	Sep	26.03	40.65	29.63	17.35	55.65	39.63	2014	Sep	5.65	40.65	29.63	2.82	85.45	30.63
	Oct	26.03	40.25	26.81	17.35	55.25	36.81		Oct	5.65	40.25	26.81	2.82	85.05	27.81
	Nov	26.03	39.56	23.52	17.35	54.56	33.52		Nov	5.65	39.56	23.52	2.82	84.36	24.52
	Dec	26.03	39.51	20.26	17.35	54.51	30.26		Dec	5.65	39.51	20.26	2.82	84.31	21.26
	Jan	27.16	38.74	17.63	18.11	53.74	27.63		Jan	5.89	38.74	17.63	2.95	83.54	18.63
	Feb	27.16	39.13	17.13	18.11	54.13	27.13		Feb	5.89	39.13	17.13	2.95	83.93	18.13
	Mar	27.16	38.84	18.87	18.11	53.84	28.87		Mar	5.89	38.84	18.87	2.95	83.64	19.87
	Apr	27.16	38.44	22.03	18.11	53.44	32.03		Apr	5.89	38.44	22.03	2.95	83.24	23.03
	May	27.16	39.70	26.11	18.11	54.70	36.11		May	5.89	39.70	26.11	2.95	84.50	27.11
	Jun	27.16	39.65	28.12	18.11	54.65	38.12		Jun	5.89	39.65	28.12	2.95	84.45	29.12
	Jul	27.16	40.15	29.74	18.11	55.15	39.74		Jul	5.89	40.15	29.74	2.95	84.95	30.74
	Aug	27.16	40.44	29.23	18.11	55.44	39.23		Aug	5.89	40.44	29.23	2.95	85.24	30.23
2015	Sep	27.16	39.48	29.29	18.11	54.48	39.29	2015	Sep	5.89	39.48	29.29	2.95	84.28	30.29
	Oct	27.16	40.39	27.52	18.11	55.39	37.52		Oct	5.89	40.39	27.52	2.95	85.19	28.52
	Nov	27.16	40.07	24.01	18.11	55.07	34.01		Nov	5.89	40.07	24.01	2.95	84.87	25.01
	Dec	27.16	39.92	19.43	18.11	54.92	29.43		Dec	5.89	39.92	19.43	2.95	84.72	20.43
	Jan	28.30	39.39	17.16	18.86	54.39	27.16		Jan	6.14	39.39	17.16	3.07	84.19	18.16
	Feb	28.30	39.02	17.30	18.86	54.02	27.30		Feb	6.14	39.02	17.30	3.07	83.82	18.30
	Mar	28.30	38.84	18.87	18.86	53.84	28.87		Mar	6.14	38.84	18.87	3.07	83.64	19.87
	Apr	28.30	39.11	22.23	18.86	54.11	32.23		Apr	6.14	39.11	22.23	3.07	83.91	23.23
	May	28.30	39.56	24.58	18.86	54.56	34.58		May	6.14	39.56	24.58	3.07	84.36	25.58
	Jun	28.30	39.46	27.87	18.86	54.46	37.87		Jun	6.14	39.46	27.87	3.07	84.26	28.87
	Jul	28.30	39.56	28.86	18.86	54.56	38.86		Jul	6.14	39.56	28.86	3.07	84.36	29.86
	Aug	28.30	39.46	30.49	18.86	54.46	40.49		Aug	6.14	39.46	30.49	3.07	84.26	31.49
2015	Sep	28.30	39.80	29.73	18.86	54.80	39.73	2015	Sep	6.14	39.80	29.73	3.07	84.60	30.73
	Oct	28.30	40.31	28.13	18.86	55.31	38.13		Oct	6.14	40.31	28.13	3.07	85.11	29.13
	Nov	28.30	39.57	24.23	18.86	54.57	34.23		Nov	6.14	39.57	24.23	3.07	84.37	25.23
	Dec	28.30	39.43	20.16	18.86	54.43	30.16		Dec	6.14	39.43	20.16	3.07	84.23	21.16

Qatar (Dukhan) MED		Inflow			Outflow			Qatar (Abu Samra) RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	1.32	42.17	19.98	0.90	57.17	29.98	2004	Jan	0.38	42.17	19.98	0.19	86.97	20.98
	Feb	1.32	42.01	18.43	0.90	57.01	28.43		Feb	0.38	42.01	18.43	0.19	86.81	19.43
	Mar	1.32	42.15	19.01	0.90	57.15	29.01		Mar	0.38	42.15	19.01	0.19	86.95	20.01
	Apr	1.32	42.08	20.86	0.90	57.08	30.86		Apr	0.38	42.08	20.86	0.19	86.88	21.86
	May	1.32	42.14	22.57	0.90	57.14	32.57		May	0.38	42.14	22.57	0.19	86.94	23.57
	Jun	1.32	42.09	23.44	0.90	57.09	33.44		Jun	0.38	42.09	23.44	0.19	86.89	24.44
	Jul	1.32	42.13	25.62	0.90	57.13	35.62		Jul	0.38	42.13	25.62	0.19	86.93	26.62
	Aug	1.32	42.26	26.66	0.90	57.26	36.66		Aug	0.38	42.26	26.66	0.19	87.06	27.66
	Sep	1.32	42.29	26.49	0.90	57.29	36.49		Sep	0.38	42.29	26.49	0.19	87.09	27.49
	Oct	1.32	42.31	26.35	0.90	57.31	36.35		Oct	0.38	42.31	26.35	0.19	87.11	27.35
	Nov	1.32	42.52	25.89	0.90	57.52	35.89		Nov	0.38	42.52	25.89	0.19	87.32	26.89
	Dec	1.32	42.60	22.53	0.90	57.60	32.53		Dec	0.38	42.60	22.53	0.19	87.40	23.53
2005	Jan	1.39	42.41	19.47	0.95	57.41	29.47	2005	Jan	0.41	42.41	19.47	0.20	87.21	20.47
	Feb	1.39	42.45	18.23	0.95	57.45	28.23		Feb	0.41	42.45	18.23	0.20	87.25	19.23
	Mar	1.39	42.42	19.18	0.95	57.42	29.18		Mar	0.41	42.42	19.18	0.20	87.22	20.18
	Apr	1.39	42.35	20.11	0.95	57.35	30.11		Apr	0.41	42.35	20.11	0.20	87.15	21.11
	May	1.39	42.40	22.86	0.95	57.40	32.86		May	0.41	42.40	22.86	0.20	87.20	23.86
	Jun	1.39	42.34	24.17	0.95	57.34	34.17		Jun	0.41	42.34	24.17	0.20	87.14	25.17

	Jul	1.39	42.37	24.46	0.95	57.37	34.46		Jul	0.41	42.37	24.46	0.20	87.17	25.46
	Aug	1.39	42.48	26.33	0.95	57.48	36.33		Aug	0.41	42.48	26.33	0.20	87.28	27.33
	Sep	1.39	42.56	26.88	0.95	57.56	36.88		Sep	0.41	42.56	26.88	0.20	87.36	27.88
	Oct	1.39	42.57	26.12	0.95	57.57	36.12		Oct	0.41	42.57	26.12	0.20	87.37	27.12
	Nov	1.39	42.76	25.37	0.95	57.76	35.37		Nov	0.41	42.76	25.37	0.20	87.56	26.37
2006	Dec	1.39	42.81	22.91	0.95	57.81	32.91	2006	Dec	0.41	42.81	22.91	0.20	87.61	23.91
	Jan	1.46	42.74	20.21	1.00	57.74	30.21		Jan	0.44	42.74	20.21	0.22	87.54	21.21
	Feb	1.46	42.66	18.12	1.00	57.66	28.12		Feb	0.44	42.66	18.12	0.22	87.46	19.12
	Mar	1.46	42.60	19.14	1.00	57.60	29.14		Mar	0.44	42.60	19.14	0.22	87.40	20.14
	Apr	1.46	42.56	20.40	1.00	57.56	30.40		Apr	0.44	42.56	20.40	0.22	87.36	21.40
	May	1.46	42.45	22.35	1.00	57.45	32.35		May	0.44	42.45	22.35	0.22	87.25	23.35
	Jun	1.46	42.45	23.09	1.00	57.45	33.09		Jun	0.44	42.45	23.09	0.22	87.25	24.09
	Jul	1.46	42.49	24.74	1.00	57.49	34.74		Jul	0.44	42.49	24.74	0.22	87.29	25.74
	Aug	1.46	42.62	25.60	1.00	57.62	35.60		Aug	0.44	42.62	25.60	0.22	87.42	26.60
	Sep	1.46	42.73	26.84	1.00	57.73	36.84		Sep	0.44	42.73	26.84	0.22	87.53	27.84
	Oct	1.46	42.70	26.31	1.00	57.70	36.31		Oct	0.44	42.70	26.31	0.22	87.50	27.31
	Nov	1.46	42.79	25.40	1.00	57.79	35.40		Nov	0.44	42.79	25.40	0.22	87.59	26.40
2007	Dec	1.46	42.82	22.63	1.00	57.82	32.63	2007	Dec	0.44	42.82	22.63	0.22	87.62	23.63
	Jan	1.54	42.75	19.49	1.05	57.75	29.49		Jan	0.46	42.75	19.49	0.23	87.55	20.49
	Feb	1.54	42.75	18.00	1.05	57.75	28.00		Feb	0.46	42.75	18.00	0.23	87.55	19.00
	Mar	1.54	42.83	18.96	1.05	57.83	28.96		Mar	0.46	42.83	18.96	0.23	87.63	19.96
	Apr	1.54	42.71	20.90	1.05	57.71	30.90		Apr	0.46	42.71	20.90	0.23	87.51	21.90
	May	1.54	42.58	22.71	1.05	57.58	32.71		May	0.46	42.58	22.71	0.23	87.38	23.71
	Jun	1.54	42.56	24.30	1.05	57.56	34.30		Jun	0.46	42.56	24.30	0.23	87.36	25.30
	Jul	1.54	42.65	25.21	1.05	57.65	35.21		Jul	0.46	42.65	25.21	0.23	87.45	26.21
	Aug	1.54	42.76	26.34	1.05	57.76	36.34		Aug	0.46	42.76	26.34	0.23	87.56	27.34
	Sep	1.54	42.79	26.78	1.05	57.79	36.78		Sep	0.46	42.79	26.78	0.23	87.59	27.78
	Oct	1.54	42.81	26.37	1.05	57.81	36.37		Oct	0.46	42.81	26.37	0.23	87.61	27.37
	Nov	1.54	42.94	25.58	1.05	57.94	35.58		Nov	0.46	42.94	25.58	0.23	87.74	26.58
2008	Dec	1.54	42.91	22.83	1.05	57.91	32.83	2008	Dec	0.46	42.91	22.83	0.23	87.71	23.83
	Jan	1.61	42.90	19.60	1.10	57.90	29.60		Jan	0.49	42.90	19.60	0.25	87.70	20.60
	Feb	1.61	42.83	18.00	1.10	57.83	28.00		Feb	0.49	42.83	18.00	0.25	87.63	19.00
	Mar	1.61	42.78	18.47	1.10	57.78	28.47		Mar	0.49	42.78	18.47	0.25	87.58	19.47
	Apr	1.61	42.83	20.27	1.10	57.83	30.27		Apr	0.49	42.83	20.27	0.25	87.63	21.27
	May	1.61	42.68	22.83	1.10	57.68	32.83		May	0.49	42.68	22.83	0.25	87.48	23.83
	Jun	1.61	42.59	23.83	1.10	57.59	33.83		Jun	0.49	42.59	23.83	0.25	87.39	24.83
	Jul	1.61	42.76	25.22	1.10	57.76	35.22		Jul	0.49	42.76	25.22	0.25	87.56	26.22
	Aug	1.61	42.82	26.15	1.10	57.82	36.15		Aug	0.49	42.82	26.15	0.25	87.62	27.15
	Sep	1.61	42.91	26.68	1.10	57.91	36.68		Sep	0.49	42.91	26.68	0.25	87.71	27.68
	Oct	1.61	42.88	26.02	1.10	57.88	36.02		Oct	0.49	42.88	26.02	0.25	87.68	27.02
	Nov	1.61	42.99	25.26	1.10	57.99	35.26		Nov	0.49	42.99	25.26	0.25	87.79	26.26
2009	Dec	1.61	43.00	22.56	1.10	58.00	32.56	2009	Dec	0.49	43.00	22.56	0.25	87.80	23.56
	Jan	1.68	42.91	19.65	1.15	57.91	29.65		Jan	0.52	42.91	19.65	0.26	87.71	20.65
	Feb	1.68	42.87	18.12	1.15	57.87	28.12		Feb	0.52	42.87	18.12	0.26	87.67	19.12
	Mar	1.68	42.97	18.76	1.15	57.97	28.76		Mar	0.52	42.97	18.76	0.26	87.77	19.76
	Apr	1.68	42.87	20.27	1.15	57.87	30.27		Apr	0.52	42.87	20.27	0.26	87.67	21.27
	May	1.68	42.72	21.74	1.15	57.72	31.74		May	0.52	42.72	21.74	0.26	87.52	22.74
	Jun	1.68	42.66	23.93	1.15	57.66	33.93		Jun	0.52	42.66	23.93	0.26	87.46	24.93
	Jul	1.68	42.71	25.37	1.15	57.71	35.37		Jul	0.52	42.71	25.37	0.26	87.51	26.37
	Aug	1.68	42.89	25.50	1.15	57.89	35.50		Aug	0.52	42.89	25.50	0.26	87.69	26.50
	Sep	1.68	42.97	26.37	1.15	57.97	36.37		Sep	0.52	42.97	26.37	0.26	87.77	27.37
	Oct	1.68	43.08	25.89	1.15	58.08	35.89		Oct	0.52	43.08	25.89	0.26	87.88	26.89
	Nov	1.68	43.09	25.47	1.15	58.09	35.47		Nov	0.52	43.09	25.47	0.26	87.89	26.47
2010	Dec	1.68	43.07	22.51	1.15	58.07	32.51	2010	Dec	0.52	43.07	22.51	0.26	87.87	23.51
	Jan	1.75	43.04	19.72	1.20	58.04	29.72		Jan	0.55	43.04	19.72	0.27	87.84	20.72
	Feb	1.75	43.11	18.56	1.20	58.11	28.56		Feb	0.55	43.11	18.56	0.27	87.91	19.56
	Mar	1.75	43.05	18.94	1.20	58.05	28.94		Mar	0.55	43.05	18.94	0.27	87.85	19.94
	Apr	1.75	42.90	20.75	1.20	57.90	30.75		Apr	0.55	42.90	20.75	0.27	87.70	21.75
	May	1.75	42.98	22.52	1.20	57.98	32.52		May	0.55	42.98	22.52	0.27	87.78	23.52
	Jun	1.75	42.86	23.84	1.20	57.86	33.84		Jun	0.55	42.86	23.84	0.27	87.66	24.84
	Jul	1.75	42.97	24.96	1.20	57.97	34.96		Jul	0.55	42.97	24.96	0.27	87.77	25.96
	Aug	1.75	43.02	26.04	1.20	58.02	36.04		Aug	0.55	43.02	26.04	0.27	87.82	27.04
	Sep	1.75	43.14	27.06	1.20	58.14	37.06		Sep	0.55	43.14	27.06	0.27	87.94	28.06
	Oct	1.75	43.07	26.62	1.20	58.07	36.62		Oct	0.55	43.07	26.62	0.27	87.87	27.62

	Nov	1.75	43.20	25.54	1.20	58.20	35.54		Nov	0.55	43.20	25.54	0.27	88.00	26.54
	Dec	1.75	43.18	22.86	1.20	58.18	32.86		Dec	0.55	43.18	22.86	0.27	87.98	23.86
2011	Jan	1.83	43.15	19.90	1.25	58.15	29.90	2011	Jan	0.57	43.15	19.90	0.29	87.95	20.90
	Feb	1.83	43.07	18.01	1.25	58.07	28.01		Feb	0.57	43.07	18.01	0.29	87.87	19.01
	Mar	1.83	43.13	18.60	1.25	58.13	28.60		Mar	0.57	43.13	18.60	0.29	87.93	19.60
	Apr	1.83	43.18	20.71	1.25	58.18	30.71		Apr	0.57	43.18	20.71	0.29	87.98	21.71
	May	1.83	43.14	22.92	1.25	58.14	32.92		May	0.57	43.14	22.92	0.29	87.94	23.92
	Jun	1.83	43.10	24.00	1.25	58.10	34.00		Jun	0.57	43.10	24.00	0.29	87.90	25.00
	Jul	1.83	43.15	25.12	1.25	58.15	35.12		Jul	0.57	43.15	25.12	0.29	87.95	26.12
	Aug	1.83	43.24	26.58	1.25	58.24	36.58		Aug	0.57	43.24	26.58	0.29	88.04	27.58
	Sep	1.83	43.24	26.55	1.25	58.24	36.55		Sep	0.57	43.24	26.55	0.29	88.04	27.55
	Oct	1.83	43.33	26.36	1.25	58.33	36.36		Oct	0.57	43.33	26.36	0.29	88.13	27.36
	Nov	1.83	43.45	25.33	1.25	58.45	35.33		Nov	0.57	43.45	25.33	0.29	88.25	26.33
	Dec	1.83	43.46	22.34	1.25	58.46	32.34		Dec	0.57	43.46	22.34	0.29	88.26	23.34
2012	Jan	1.90	43.40	19.41	1.30	58.40	29.41	2012	Jan	0.60	43.40	19.41	0.30	88.20	20.41
	Feb	1.90	43.41	17.78	1.30	58.41	27.78		Feb	0.60	43.41	17.78	0.30	88.21	18.78
	Mar	1.90	43.46	18.41	1.30	58.46	28.41		Mar	0.60	43.46	18.41	0.30	88.26	19.41
	Apr	1.90	43.41	20.11	1.30	58.41	30.11		Apr	0.60	43.41	20.11	0.30	88.21	21.11
	May	1.90	43.41	22.68	1.30	58.41	32.68		May	0.60	43.41	22.68	0.30	88.21	23.68
	Jun	1.90	43.30	22.70	1.30	58.30	32.70		Jun	0.60	43.30	22.70	0.30	88.10	23.70
	Jul	1.90	43.41	25.25	1.30	58.41	35.25		Jul	0.60	43.41	25.25	0.30	88.21	26.25
	Aug	1.90	43.45	26.41	1.30	58.45	36.41		Aug	0.60	43.45	26.41	0.30	88.25	27.41
	Sep	1.90	43.48	26.15	1.30	58.48	36.15		Sep	0.60	43.48	26.15	0.30	88.28	27.15
	Oct	1.90	43.58	26.09	1.30	58.58	36.09		Oct	0.60	43.58	26.09	0.30	88.38	27.09
	Nov	1.90	43.62	25.52	1.30	58.62	35.52		Nov	0.60	43.62	25.52	0.30	88.42	26.52
	Dec	1.90	43.60	22.22	1.30	58.60	32.22		Dec	0.60	43.60	22.22	0.30	88.40	23.22
2013	Jan	1.97	43.65	19.78	1.35	58.65	29.78	2013	Jan	0.63	43.65	19.78	0.31	88.45	20.78
	Feb	1.97	43.64	18.18	1.35	58.64	28.18		Feb	0.63	43.64	18.18	0.31	88.44	19.18
	Mar	1.97	43.60	18.71	1.35	58.60	28.71		Mar	0.63	43.60	18.71	0.31	88.40	19.71
	Apr	1.97	43.49	20.65	1.35	58.49	30.65		Apr	0.63	43.49	20.65	0.31	88.29	21.65
	May	1.97	43.48	22.54	1.35	58.48	32.54		May	0.63	43.48	22.54	0.31	88.28	23.54
	Jun	1.97	43.41	23.32	1.35	58.41	33.32		Jun	0.63	43.41	23.32	0.31	88.21	24.32
	Jul	1.97	43.58	25.27	1.35	58.58	35.27		Jul	0.63	43.58	25.27	0.31	88.38	26.27
	Aug	1.97	43.62	25.91	1.35	58.62	35.91		Aug	0.63	43.62	25.91	0.31	88.42	26.91
	Sep	1.97	43.71	26.76	1.35	58.71	36.76		Sep	0.63	43.71	26.76	0.31	88.51	27.76
	Oct	1.97	43.78	26.25	1.35	58.78	36.25		Oct	0.63	43.78	26.25	0.31	88.58	27.25
	Nov	1.97	43.83	25.34	1.35	58.83	35.34		Nov	0.63	43.83	25.34	0.31	88.63	26.34
	Dec	1.97	43.85	22.73	1.35	58.85	32.73		Dec	0.63	43.85	22.73	0.31	88.65	23.73
2014	Jan	2.05	43.87	19.60	1.40	58.87	29.60	2014	Jan	0.65	43.87	19.60	0.33	88.67	20.60
	Feb	2.05	43.79	18.07	1.40	58.79	28.07		Feb	0.65	43.79	18.07	0.33	88.59	19.07
	Mar	2.05	43.86	18.80	1.40	58.86	28.80		Mar	0.65	43.86	18.80	0.33	88.66	19.80
	Apr	2.05	43.60	20.16	1.40	58.60	30.16		Apr	0.65	43.60	20.16	0.33	88.40	21.16
	May	2.05	43.64	22.40	1.40	58.64	32.40		May	0.65	43.64	22.40	0.33	88.44	23.40
	Jun	2.05	43.65	24.08	1.40	58.65	34.08		Jun	0.65	43.65	24.08	0.33	88.45	25.08
	Jul	2.05	43.73	25.25	1.40	58.73	35.25		Jul	0.65	43.73	25.25	0.33	88.53	26.25
	Aug	2.05	43.80	25.91	1.40	58.80	35.91		Aug	0.65	43.80	25.91	0.33	88.60	26.91
	Sep	2.05	43.87	26.49	1.40	58.87	36.49		Sep	0.65	43.87	26.49	0.33	88.67	27.49
	Oct	2.05	43.91	26.03	1.40	58.91	36.03		Oct	0.65	43.91	26.03	0.33	88.71	27.03
	Nov	2.05	43.97	25.20	1.40	58.97	35.20		Nov	0.65	43.97	25.20	0.33	88.77	26.20
	Dec	2.05	43.92	22.18	1.40	58.92	32.18		Dec	0.65	43.92	22.18	0.33	88.72	23.18
2015	Jan	2.12	43.98	19.52	1.45	58.98	29.52	2015	Jan	0.68	43.98	19.52	0.34	88.78	20.52
	Feb	2.12	43.95	17.89	1.45	58.95	27.89		Feb	0.68	43.95	17.89	0.34	88.75	18.89
	Mar	2.12	43.86	18.80	1.45	58.86	28.80		Mar	0.68	43.86	18.80	0.34	88.66	19.80
	Apr	2.12	43.89	20.42	1.45	58.89	30.42		Apr	0.68	43.89	20.42	0.34	88.69	21.42
	May	2.12	43.95	22.34	1.45	58.95	32.34		May	0.68	43.95	22.34	0.34	88.75	23.34
	Jun	2.12	43.89	24.37	1.45	58.89	34.37		Jun	0.68	43.89	24.37	0.34	88.69	25.37
	Jul	2.12	43.91	25.33	1.45	58.91	35.33		Jul	0.68	43.91	25.33	0.34	88.71	26.33
	Aug	2.12	44.05	26.87	1.45	59.05	36.87		Aug	0.68	44.05	26.87	0.34	88.85	27.87
	Sep	2.12	44.08	27.06	1.45	59.08	37.06		Sep	0.68	44.08	27.06	0.34	88.88	28.06
	Oct	2.12	44.16	26.69	1.45	59.16	36.69		Oct	0.68	44.16	26.69	0.34	88.96	27.69
	Nov	2.12	44.22	25.61	1.45	59.22	35.61		Nov	0.68	44.22	25.61	0.34	89.02	26.61
	Dec	2.12	44.11	22.17	1.45	59.11	32.17		Dec	0.68	44.11	22.17	0.34	88.91	23.17

UAE (Abudhabi) MSF		Inflow			Outflow			UAE (UmmAlnar) MSF		Inflow			Outflow		
		F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)			F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)
2004	Jan	7.26	40.83	17.61	4.35	50.83	27.61	2004	Jan	38.76	40.83	17.61	29.06	50.83	27.61
	Feb	7.26	40.71	17.05	4.35	50.71	27.05		Feb	38.76	40.71	17.05	29.06	50.71	27.05
	Mar	7.26	40.55	19.15	4.35	50.55	29.15		Mar	38.76	40.55	19.15	29.06	50.55	29.15
	Apr	7.26	40.47	22.94	4.35	50.47	32.94		Apr	38.76	40.47	22.94	29.06	50.47	32.94
	May	7.26	39.78	25.90	4.35	49.78	35.90		May	38.76	39.78	25.90	29.06	49.78	35.90
	Jun	7.26	40.50	28.21	4.35	50.50	38.21		Jun	38.76	40.50	28.21	29.06	50.50	38.21
	Jul	7.26	39.87	29.68	4.35	49.87	39.68		Jul	38.76	39.87	29.68	29.06	49.87	39.68
	Aug	7.26	40.50	30.21	4.35	50.50	40.21		Aug	38.76	40.50	30.21	29.06	50.50	40.21
	Sep	7.26	40.56	29.50	4.35	50.56	39.50		Sep	38.76	40.56	29.50	29.06	50.56	39.50
	Oct	7.26	41.42	27.94	4.35	51.42	37.94		Oct	38.76	41.42	27.94	29.06	51.42	37.94
	Nov	7.26	41.55	24.90	4.35	51.55	34.90		Nov	38.76	41.55	24.90	29.06	51.55	34.90
	Dec	7.26	41.61	20.61	4.35	51.61	30.61		Dec	38.76	41.61	20.61	29.06	51.61	30.61
2005	Jan	7.26	41.47	16.94	4.35	51.47	26.94	2005	Jan	39.97	41.47	16.94	29.97	51.47	26.94
	Feb	7.26	40.48	17.28	4.35	50.48	27.28		Feb	39.97	40.48	17.28	29.97	50.48	27.28
	Mar	7.26	40.79	19.26	4.35	50.79	29.26		Mar	39.97	40.79	19.26	29.97	50.79	29.26
	Apr	7.26	40.36	22.80	4.35	50.36	32.80		Apr	39.97	40.36	22.80	29.97	50.36	32.80
	May	7.26	40.23	26.34	4.35	50.23	36.34		May	39.97	40.23	26.34	29.97	50.23	36.34
	Jun	7.26	39.98	28.39	4.35	49.98	38.39		Jun	39.97	39.98	28.39	29.97	49.98	38.39
	Jul	7.26	40.44	29.44	4.35	50.44	39.44		Jul	39.97	40.44	29.44	29.97	50.44	39.44
	Aug	7.26	40.94	30.41	4.35	50.94	40.41		Aug	39.97	40.94	30.41	29.97	50.94	40.41
	Sep	7.26	41.14	29.65	4.35	51.14	39.65		Sep	39.97	41.14	29.65	29.97	51.14	39.65
	Oct	7.26	41.31	28.10	4.35	51.31	38.10		Oct	39.97	41.31	28.10	29.97	51.31	38.10
	Nov	7.26	41.18	24.65	4.35	51.18	34.65		Nov	39.97	41.18	24.65	29.97	51.18	34.65
	Dec	7.26	41.16	20.44	4.35	51.16	30.44		Dec	39.97	41.16	20.44	29.97	51.16	30.44
2006	Jan	7.26	41.13	17.45	4.35	51.13	27.43	2006	Jan	41.17	41.13	17.45	30.87	51.13	27.43
	Feb	7.26	40.49	17.08	4.35	50.49	27.08		Feb	41.17	40.49	17.08	30.87	50.49	27.08
	Mar	7.26	40.41	19.37	4.35	50.41	29.37		Mar	41.17	40.41	19.37	30.87	50.41	29.37
	Apr	7.26	40.17	22.48	4.35	50.17	32.48		Apr	41.17	40.17	22.48	30.87	50.17	32.48
	May	7.26	39.98	25.95	4.35	49.98	35.95		May	41.17	39.98	25.95	30.87	49.98	35.95
	Jun	7.26	39.70	28.18	4.35	49.70	38.18		Jun	41.17	39.70	28.18	30.87	49.70	38.18
	Jul	7.26	40.05	29.78	4.35	50.05	39.78		Jul	41.17	40.05	29.78	30.87	50.05	39.78
	Aug	7.26	40.80	30.30	4.35	50.80	40.30		Aug	41.17	40.80	30.30	30.87	50.80	40.30
	Sep	7.26	40.98	29.40	4.35	50.98	39.40		Sep	41.17	40.98	29.40	30.87	50.98	39.40
	Oct	7.26	41.33	27.96	4.35	51.33	37.96		Oct	41.17	41.33	27.96	30.87	51.33	37.96
	Nov	7.26	41.95	24.59	4.35	51.95	34.59		Nov	41.17	41.95	24.59	30.87	51.95	34.59
	Dec	7.26	40.90	21.14	4.35	50.90	31.14		Dec	41.17	40.90	21.14	30.87	50.90	31.14
2007	Jan	7.26	41.37	17.22	4.35	51.37	27.22	2007	Jan	42.38	41.37	17.22	31.78	51.37	27.22
	Feb	7.26	40.90	16.96	4.35	50.90	26.96		Feb	42.38	40.90	16.96	31.78	50.90	26.96
	Mar	7.26	40.59	19.29	4.35	50.59	29.29		Mar	42.38	40.59	19.29	31.78	50.59	29.29
	Apr	7.26	41.11	22.42	4.35	51.11	32.42		Apr	42.38	41.11	22.42	31.78	51.11	32.42
	May	7.26	39.91	26.14	4.35	49.91	36.14		May	42.38	39.91	26.14	31.78	49.91	36.14
	Jun	7.26	39.85	28.30	4.35	49.85	38.30		Jun	42.38	39.85	28.30	31.78	49.85	38.30
	Jul	7.26	40.17	29.93	4.35	50.17	39.93		Jul	42.38	40.17	29.93	31.78	50.17	39.93
	Aug	7.26	40.71	29.91	4.35	50.71	39.91		Aug	42.38	40.71	29.91	31.78	50.71	39.91
	Sep	7.26	41.17	29.27	4.35	51.17	39.27		Sep	42.38	41.17	29.27	31.78	51.17	39.27
	Oct	7.26	42.01	28.10	4.35	52.01	38.10		Oct	42.38	42.01	28.10	31.78	52.01	38.10
	Nov	7.26	41.90	24.44	4.35	51.90	34.44		Nov	42.38	41.90	24.44	31.78	51.90	34.44
	Dec	7.26	40.62	20.56	4.35	50.62	30.56		Dec	42.38	40.62	20.56	31.78	50.62	30.56
2008	Jan	7.26	40.60	17.70	4.35	50.60	27.70	2008	Jan	43.58	40.60	17.70	32.68	50.60	27.70
	Feb	7.26	40.32	17.41	4.35	50.32	27.41		Feb	43.58	40.32	17.41	32.68	50.32	27.41
	Mar	7.26	40.62	19.20	4.35	50.62	29.20		Mar	43.58	40.62	19.20	32.68	50.62	29.20
	Apr	7.26	40.49	23.29	4.35	50.49	33.29		Apr	43.58	40.49	23.29	32.68	50.49	33.29
	May	7.26	39.99	26.38	4.35	49.99	36.38		May	43.58	39.99	26.38	32.68	49.99	36.38
	Jun	7.26	39.94	28.32	4.35	49.94	38.32		Jun	43.58	39.94	28.32	32.68	49.94	38.32
	Jul	7.26	40.72	30.20	4.35	50.72	40.20		Jul	43.58	40.72	30.20	32.68	50.72	40.20
	Aug	7.26	40.12	30.18	4.35	50.12	40.18		Aug	43.58	40.12	30.18	32.68	50.12	40.18
	Sep	7.26	40.89	29.22	4.35	50.89	39.22		Sep	43.58	40.89	29.22	32.68	50.89	39.22
	Oct	7.26	41.36	27.76	4.35	51.36	37.76		Oct	43.58	41.36	27.76	32.68	51.36	37.76

	Nov	7.26	41.52	24.81	4.35	51.52	34.81		Nov	43.58	41.52	24.81	32.68	51.52	34.81
	Dec	7.26	41.16	20.68	4.35	51.16	30.68		Dec	43.58	41.16	20.68	32.68	51.16	30.68
2009	Jan	7.26	40.73	17.91	4.35	50.73	27.91	2009	Jan	44.79	40.73	17.91	33.59	50.73	27.91
	Feb	7.26	40.47	17.79	4.35	50.47	27.79		Feb	44.79	40.47	17.79	33.59	50.47	27.79
	Mar	7.26	40.76	19.74	4.35	50.76	29.74		Mar	44.79	40.76	19.74	33.59	50.76	29.74
	Apr	7.26	39.92	22.20	4.35	49.92	32.20		Apr	44.79	39.92	22.20	33.59	49.92	32.20
	May	7.26	40.06	26.12	4.35	50.06	36.12		May	44.79	40.06	26.12	33.59	50.06	36.12
	Jun	7.26	40.09	28.37	4.35	50.09	38.37		Jun	44.79	40.09	28.37	33.59	50.09	38.37
	Jul	7.26	40.24	30.17	4.35	50.24	40.17		Jul	44.79	40.24	30.17	33.59	50.24	40.17
	Aug	7.26	41.03	30.26	4.35	51.03	40.26		Aug	44.79	41.03	30.26	33.59	51.03	40.26
	Sep	7.26	41.31	29.42	4.35	51.31	39.42		Sep	44.79	41.31	29.42	33.59	51.31	39.42
	Oct	7.26	41.64	27.68	4.35	51.64	37.68		Oct	44.79	41.64	27.68	33.59	51.64	37.68
	Nov	7.26	40.69	24.99	4.35	50.69	34.99		Nov	44.79	40.69	24.99	33.59	50.69	34.99
	Dec	7.26	40.64	21.09	4.35	50.64	31.09		Dec	44.79	40.64	21.09	33.59	50.64	31.09
2010	Jan	7.26	40.80	17.59	4.35	50.80	27.59	2010	Jan	45.99	40.80	17.59	34.49	50.80	27.59
	Feb	7.26	40.09	17.70	4.35	50.09	27.70		Feb	45.99	40.09	17.70	34.49	50.09	27.70
	Mar	7.26	40.47	19.42	4.35	50.47	29.42		Mar	45.99	40.47	19.42	34.49	50.47	29.42
	Apr	7.26	40.20	22.74	4.35	50.20	32.74		Apr	45.99	40.20	22.74	34.49	50.20	32.74
	May	7.26	39.70	26.05	4.35	49.70	36.05		May	45.99	39.70	26.05	34.49	49.70	36.05
	Jun	7.26	39.80	28.29	4.35	49.80	38.29		Jun	45.99	39.80	28.29	34.49	49.80	38.29
	Jul	7.26	40.22	29.57	4.35	50.22	39.57		Jul	45.99	40.22	29.57	34.49	50.22	39.57
	Aug	7.26	40.89	30.13	4.35	50.89	40.13		Aug	45.99	40.89	30.13	34.49	50.89	40.13
	Sep	7.26	41.56	29.30	4.35	51.56	39.30		Sep	45.99	41.56	29.30	34.49	51.56	39.30
	Oct	7.26	41.70	27.89	4.35	51.70	37.89		Oct	45.99	41.70	27.89	34.49	51.70	37.89
	Nov	7.26	41.64	24.81	4.35	51.64	34.81		Nov	45.99	41.64	24.81	34.49	51.64	34.81
	Dec	7.26	41.38	21.02	4.35	51.38	31.02		Dec	45.99	41.38	21.02	34.49	51.38	31.02
2011	Jan	7.26	41.20	17.79	4.35	51.20	27.79	2011	Jan	47.20	41.20	17.79	35.40	51.20	27.79
	Feb	7.26	41.17	17.25	4.35	51.17	27.25		Feb	47.20	41.17	17.25	35.40	51.17	27.25
	Mar	7.26	40.89	19.14	4.35	50.89	29.14		Mar	47.20	40.89	19.14	35.40	50.89	29.14
	Apr	7.26	40.89	22.42	4.35	50.89	32.42		Apr	47.20	40.89	22.42	35.40	50.89	32.42
	May	7.26	39.84	26.01	4.35	49.84	36.01		May	47.20	39.84	26.01	35.40	49.84	36.01
	Jun	7.26	40.19	28.23	4.35	50.19	38.23		Jun	47.20	40.19	28.23	35.40	50.19	38.23
	Jul	7.26	40.10	29.60	4.35	50.10	39.60		Jul	47.20	40.10	29.60	35.40	50.10	39.60
	Aug	7.26	40.30	29.91	4.35	50.30	39.91		Aug	47.20	40.30	29.91	35.40	50.30	39.91
	Sep	7.26	40.71	29.46	4.35	50.71	39.46		Sep	47.20	40.71	29.46	35.40	50.71	39.46
	Oct	7.26	40.86	28.03	4.35	50.86	38.03		Oct	47.20	40.86	28.03	35.40	50.86	38.03
	Nov	7.26	41.07	24.18	4.35	51.07	34.18		Nov	47.20	41.07	24.18	35.40	51.07	34.18
	Dec	7.26	40.76	20.72	4.35	50.76	30.72		Dec	47.20	40.76	20.72	35.40	50.76	30.72
2012	Jan	7.26	40.32	17.54	4.35	50.32	27.54	2012	Jan	48.40	40.32	17.54	36.30	50.32	27.54
	Feb	7.26	40.42	17.22	4.35	50.42	27.22		Feb	48.40	40.42	17.22	36.30	50.42	27.22
	Mar	7.26	40.47	19.16	4.35	50.47	29.16		Mar	48.40	40.47	19.16	36.30	50.47	29.16
	Apr	7.26	40.68	22.33	4.35	50.68	32.33		Apr	48.40	40.68	22.33	36.30	50.68	32.33
	May	7.26	40.06	26.48	4.35	50.06	36.48		May	48.40	40.06	26.48	36.30	50.06	36.48
	Jun	7.26	39.94	28.29	4.35	49.94	38.29		Jun	48.40	39.94	28.29	36.30	49.94	38.29
	Jul	7.26	40.10	30.07	4.35	50.10	40.07		Jul	48.40	40.10	30.07	36.30	50.10	40.07
	Aug	7.26	40.75	30.39	4.35	50.75	40.39		Aug	48.40	40.75	30.39	36.30	50.75	40.39
	Sep	7.26	40.72	29.35	4.35	50.72	39.35		Sep	48.40	40.72	29.35	36.30	50.72	39.35
	Oct	7.26	41.36	27.84	4.35	51.36	37.84		Oct	48.40	41.36	27.84	36.30	51.36	37.84
	Nov	7.26	41.52	24.71	4.35	51.52	34.71		Nov	48.40	41.52	24.71	36.30	51.52	34.71
	Dec	7.26	41.32	20.71	4.35	51.32	30.71		Dec	48.40	41.32	20.71	36.30	51.32	30.71
2013	Jan	7.26	40.70	17.69	4.35	50.70	27.69	2013	Jan	49.60	40.70	17.69	37.20	50.70	27.69
	Feb	7.26	40.55	17.58	4.35	50.55	27.58		Feb	49.60	40.55	17.58	37.20	50.55	27.58
	Mar	7.26	40.57	19.47	4.35	50.57	29.47		Mar	49.60	40.57	19.47	37.20	50.57	29.47
	Apr	7.26	39.80	23.02	4.35	49.80	33.02		Apr	49.60	39.80	23.02	37.20	49.80	33.02
	May	7.26	39.97	26.52	4.35	49.97	36.52		May	49.60	39.97	26.52	37.20	49.97	36.52
	Jun	7.26	39.74	28.06	4.35	49.74	38.06		Jun	49.60	39.74	28.06	37.20	49.74	38.06
	Jul	7.26	40.48	30.10	4.35	50.48	40.10		Jul	49.60	40.48	30.10	37.20	50.48	40.10
	Aug	7.26	40.77	29.22	4.35	50.77	39.22		Aug	49.60	40.77	29.22	37.20	50.77	39.22
	Sep	7.26	41.15	29.25	4.35	51.15	39.25		Sep	49.60	41.15	29.25	37.20	51.15	39.25
	Oct	7.26	41.63	27.66	4.35	51.63	37.66		Oct	49.60	41.63	27.66	37.20	51.63	37.66
	Nov	7.26	41.13	24.65	4.35	51.13	34.65		Nov	49.60	41.13	24.65	37.20	51.13	34.65
	Dec	7.26	40.95	20.69	4.35	50.95	30.69		Dec	49.60	40.95	20.69	37.20	50.95	30.69
2014	Jan	7.26	40.99	17.21	4.35	50.99	27.21	2014	Jan	50.81	40.99	17.21	38.11	50.99	27.21
	Feb	7.26	40.46	17.50	4.35	50.46	27.50		Feb	50.81	40.46	17.50	38.11	50.46	27.50

	Mar	7.26	40.41	19.31	4.35	50.41	29.31		Mar	50.81	40.41	19.31	38.11	50.41	29.31
	Apr	7.26	40.10	22.60	4.35	50.10	32.60		Apr	50.81	40.10	22.60	38.11	50.10	32.60
	May	7.26	40.11	26.31	4.35	50.11	36.31		May	50.81	40.11	26.31	38.11	50.11	36.31
	Jun	7.26	39.63	28.41	4.35	49.63	38.41		Jun	50.81	39.63	28.41	38.11	49.63	38.41
	Jul	7.26	39.99	30.17	4.35	49.99	40.17		Jul	50.81	39.99	30.17	38.11	49.99	40.17
	Aug	7.26	40.31	29.98	4.35	50.31	39.98		Aug	50.81	40.31	29.98	38.11	50.31	39.98
	Sep	7.26	41.26	29.05	4.35	51.26	39.05		Sep	50.81	41.26	29.05	38.11	51.26	39.05
	Oct	7.26	40.94	27.96	4.35	50.94	37.96		Oct	50.81	40.94	27.96	38.11	50.94	37.96
	Nov	7.26	41.55	24.48	4.35	51.55	34.48		Nov	50.81	41.55	24.48	38.11	51.55	34.48
	Dec	7.26	41.45	20.43	4.35	51.45	30.43		Dec	50.81	41.45	20.43	38.11	51.45	30.43
2015	Jan	7.26	40.93	17.51	4.35	50.93	27.51	2015	Jan	52.01	40.93	17.51	39.01	50.93	27.51
	Feb	7.26	40.85	17.46	4.35	50.85	27.46		Feb	52.01	40.85	17.46	39.01	50.85	27.46
	Mar	7.26	40.41	19.31	4.35	50.41	29.31		Mar	52.01	40.41	19.31	39.01	50.41	29.31
	Apr	7.26	40.85	23.07	4.35	50.85	33.07		Apr	52.01	40.85	23.07	39.01	50.85	33.07
	May	7.26	40.58	26.21	4.35	50.58	36.21		May	52.01	40.58	26.21	39.01	50.58	36.21
	Jun	7.26	40.08	27.97	4.35	50.08	37.97		Jun	52.01	40.08	27.97	39.01	50.08	37.97
	Jul	7.26	40.85	29.88	4.35	50.85	39.88		Jul	52.01	40.85	29.88	39.01	50.85	39.88
	Aug	7.26	40.85	30.43	4.35	50.85	40.43		Aug	52.01	40.85	30.43	39.01	50.85	40.43
	Sep	7.26	41.00	29.61	4.35	51.00	39.61		Sep	52.01	41.00	29.61	39.01	51.00	39.61
	Oct	7.26	42.00	28.14	4.35	52.00	38.14		Oct	52.01	42.00	28.14	39.01	52.00	38.14
	Nov	7.26	41.83	24.51	4.35	51.83	34.51		Nov	52.01	41.83	24.51	39.01	51.83	34.51
	Dec	7.26	40.86	20.46	4.35	50.86	30.46		Dec	52.01	40.86	20.46	39.01	50.86	30.46

UAE (Abudhabi) MED		Inflow			Outflow			UAE (UmmAlnar) RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	0.70	40.83	17.61	0.45	55.83	27.61	2004	Jan	1.78	40.83	17.61	0.89	85.63	18.61
	Feb	0.70	40.71	17.05	0.45	55.71	27.05		Feb	1.78	40.71	17.05	0.89	85.51	18.05
	Mar	0.70	40.55	19.15	0.45	55.55	29.15		Mar	1.78	40.55	19.15	0.89	85.35	20.15
	Apr	0.70	40.47	22.94	0.45	55.47	32.94		Apr	1.78	40.47	22.94	0.89	85.27	23.94
	May	0.70	39.78	25.90	0.45	54.78	35.90		May	1.78	39.78	25.90	0.89	84.58	26.90
	Jun	0.70	40.50	28.21	0.45	55.50	38.21		Jun	1.78	40.50	28.21	0.89	85.30	29.21
	Jul	0.70	39.87	29.68	0.45	54.87	39.68		Jul	1.78	39.87	29.68	0.89	84.67	30.68
	Aug	0.70	40.50	30.21	0.45	55.50	40.21		Aug	1.78	40.50	30.21	0.89	85.30	31.21
	Sep	0.70	40.56	29.50	0.45	55.56	39.50		Sep	1.78	40.56	29.50	0.89	85.36	30.50
	Oct	0.70	41.42	27.94	0.45	56.42	37.94		Oct	1.78	41.42	27.94	0.89	86.22	28.94
	Nov	0.70	41.55	24.90	0.45	56.55	34.90		Nov	1.78	41.55	24.90	0.89	86.35	25.90
	Dec	0.70	41.61	20.61	0.45	56.61	30.61		Dec	1.78	41.61	20.61	0.89	86.41	21.61
2005	Jan	0.75	41.47	16.94	0.48	56.47	26.94	2005	Jan	1.91	41.47	16.94	0.95	86.27	17.94
	Feb	0.75	40.48	17.28	0.48	55.48	27.28		Feb	1.91	40.48	17.28	0.95	85.28	18.28
	Mar	0.75	40.79	19.26	0.48	55.79	29.26		Mar	1.91	40.79	19.26	0.95	85.59	20.26
	Apr	0.75	40.36	22.80	0.48	55.36	32.80		Apr	1.91	40.36	22.80	0.95	85.16	23.80
	May	0.75	40.23	26.34	0.48	55.23	36.34		May	1.91	40.23	26.34	0.95	85.03	27.34
	Jun	0.75	39.98	28.39	0.48	54.98	38.39		Jun	1.91	39.98	28.39	0.95	84.78	29.39
	Jul	0.75	40.44	29.44	0.48	55.44	39.44		Jul	1.91	40.44	29.44	0.95	85.24	30.44
	Aug	0.75	40.94	30.41	0.48	55.94	40.41		Aug	1.91	40.94	30.41	0.95	85.74	31.41
	Sep	0.75	41.14	29.65	0.48	56.14	39.65		Sep	1.91	41.14	29.65	0.95	85.94	30.65
	Oct	0.75	41.31	28.10	0.48	56.31	38.10		Oct	1.91	41.31	28.10	0.95	86.11	29.10
	Nov	0.75	41.18	24.65	0.48	56.18	34.65		Nov	1.91	41.18	24.65	0.95	85.98	25.65
	Dec	0.75	41.16	20.44	0.48	56.16	30.44		Dec	1.91	41.16	20.44	0.95	85.96	21.44
2006	Jan	0.80	41.13	17.45	0.51	56.13	27.43	2006	Jan	2.04	41.13	17.45	1.02	85.93	18.43
	Feb	0.80	40.49	17.08	0.51	55.49	27.08		Feb	2.04	40.49	17.08	1.02	85.29	18.08
	Mar	0.80	40.41	19.37	0.51	55.41	29.37		Mar	2.04	40.41	19.37	1.02	85.21	20.37
	Apr	0.80	40.17	22.48	0.51	55.17	32.48		Apr	2.04	40.17	22.48	1.02	84.97	23.48
	May	0.80	39.98	25.95	0.51	54.98	35.95		May	2.04	39.98	25.95	1.02	84.78	26.95
	Jun	0.80	39.70	28.18	0.51	54.70	38.18		Jun	2.04	39.70	28.18	1.02	84.50	29.18
	Jul	0.80	40.05	29.78	0.51	55.05	39.78		Jul	2.04	40.05	29.78	1.02	84.85	30.78
	Aug	0.80	40.80	30.30	0.51	55.80	40.30		Aug	2.04	40.80	30.30	1.02	85.60	31.30
	Sep	0.80	40.98	29.40	0.51	55.98	39.40		Sep	2.04	40.98	29.40	1.02	85.78	30.40
	Oct	0.80	41.33	27.96	0.51	56.33	37.96		Oct	2.04	41.33	27.96	1.02	86.13	28.96
	Nov	0.80	41.95	24.59	0.51	56.95	34.59		Nov	2.04	41.95	24.59	1.02	86.75	25.59
	Dec	0.80	40.90	21.14	0.51	55.90	31.14		Dec	2.04	40.90	21.14	1.02	85.70	22.14

2007	Jan	0.85	41.37	17.22	0.54	56.37	27.22	2007	Jan	2.16	41.37	17.22	1.08	86.17	18.22
	Feb	0.85	40.90	16.96	0.54	55.90	26.96		Feb	2.16	40.90	16.96	1.08	85.70	17.96
	Mar	0.85	40.59	19.29	0.54	55.59	29.29		Mar	2.16	40.59	19.29	1.08	85.39	20.29
	Apr	0.85	41.11	22.42	0.54	56.11	32.42		Apr	2.16	41.11	22.42	1.08	85.91	23.42
	May	0.85	39.91	26.14	0.54	54.91	36.14		May	2.16	39.91	26.14	1.08	84.71	27.14
	Jun	0.85	39.85	28.30	0.54	54.85	38.30		Jun	2.16	39.85	28.30	1.08	84.65	29.30
	Jul	0.85	40.17	29.93	0.54	55.17	39.93		Jul	2.16	40.17	29.93	1.08	84.97	30.93
	Aug	0.85	40.71	29.91	0.54	55.71	39.91		Aug	2.16	40.71	29.91	1.08	85.51	30.91
	Sep	0.85	41.17	29.27	0.54	56.17	39.27		Sep	2.16	41.17	29.27	1.08	85.97	30.27
	Oct	0.85	42.01	28.10	0.54	57.01	38.10		Oct	2.16	42.01	28.10	1.08	86.81	29.10
	Nov	0.85	41.90	24.44	0.54	56.90	34.44		Nov	2.16	41.90	24.44	1.08	86.70	25.44
	Dec	0.85	40.62	20.56	0.54	55.62	30.56		Dec	2.16	40.62	20.56	1.08	85.42	21.56
2008	Jan	0.90	40.60	17.70	0.57	55.60	27.70	2008	Jan	2.29	40.60	17.70	1.15	85.40	18.70
	Feb	0.90	40.32	17.41	0.57	55.32	27.41		Feb	2.29	40.32	17.41	1.15	85.12	18.41
	Mar	0.90	40.62	19.20	0.57	55.62	29.20		Mar	2.29	40.62	19.20	1.15	85.42	20.20
	Apr	0.90	40.49	23.29	0.57	55.49	33.29		Apr	2.29	40.49	23.29	1.15	85.29	24.29
	May	0.90	39.99	26.38	0.57	54.99	36.38		May	2.29	39.99	26.38	1.15	84.79	27.38
	Jun	0.90	39.94	28.32	0.57	54.94	38.32		Jun	2.29	39.94	28.32	1.15	84.74	29.32
	Jul	0.90	40.72	30.20	0.57	55.72	40.20		Jul	2.29	40.72	30.20	1.15	85.52	31.20
	Aug	0.90	40.12	30.18	0.57	55.12	40.18		Aug	2.29	40.12	30.18	1.15	84.92	31.18
	Sep	0.90	40.89	29.22	0.57	55.89	39.22		Sep	2.29	40.89	29.22	1.15	85.69	30.22
	Oct	0.90	41.36	27.76	0.57	56.36	37.76		Oct	2.29	41.36	27.76	1.15	86.16	28.76
	Nov	0.90	41.52	24.81	0.57	56.52	34.81		Nov	2.29	41.52	24.81	1.15	86.32	25.81
	Dec	0.90	41.16	20.68	0.57	56.16	30.68		Dec	2.29	41.16	20.68	1.15	85.96	21.68
2009	Jan	0.95	40.73	17.91	0.60	55.73	27.91	2009	Jan	2.42	40.73	17.91	1.21	85.53	18.91
	Feb	0.95	40.47	17.79	0.60	55.47	27.79		Feb	2.42	40.47	17.79	1.21	85.27	18.79
	Mar	0.95	40.76	19.74	0.60	55.76	29.74		Mar	2.42	40.76	19.74	1.21	85.56	20.74
	Apr	0.95	39.92	22.20	0.60	54.92	32.20		Apr	2.42	39.92	22.20	1.21	84.72	23.20
	May	0.95	40.06	26.12	0.60	55.06	36.12		May	2.42	40.06	26.12	1.21	84.86	27.12
	Jun	0.95	40.09	28.37	0.60	55.09	38.37		Jun	2.42	40.09	28.37	1.21	84.89	29.37
	Jul	0.95	40.24	30.17	0.60	55.24	40.17		Jul	2.42	40.24	30.17	1.21	85.04	31.17
	Aug	0.95	41.03	30.26	0.60	56.03	40.26		Aug	2.42	41.03	30.26	1.21	85.83	31.26
	Sep	0.95	41.31	29.42	0.60	56.31	39.42		Sep	2.42	41.31	29.42	1.21	86.11	30.42
	Oct	0.95	41.64	27.68	0.60	56.64	37.68		Oct	2.42	41.64	27.68	1.21	86.44	28.68
	Nov	0.95	40.69	24.99	0.60	55.69	34.99		Nov	2.42	40.69	24.99	1.21	85.49	25.99
	Dec	0.95	40.64	21.09	0.60	55.64	31.09		Dec	2.42	40.64	21.09	1.21	85.44	22.09
2010	Jan	1.00	40.80	17.59	0.64	55.80	27.59	2010	Jan	2.55	40.80	17.59	1.27	85.60	18.59
	Feb	1.00	40.09	17.70	0.64	55.09	27.70		Feb	2.55	40.09	17.70	1.27	84.89	18.70
	Mar	1.00	40.47	19.42	0.64	55.47	29.42		Mar	2.55	40.47	19.42	1.27	85.27	20.42
	Apr	1.00	40.20	22.74	0.64	55.20	32.74		Apr	2.55	40.20	22.74	1.27	85.00	23.74
	May	1.00	39.70	26.05	0.64	54.70	36.05		May	2.55	39.70	26.05	1.27	84.50	27.05
	Jun	1.00	39.80	28.29	0.64	54.80	38.29		Jun	2.55	39.80	28.29	1.27	84.60	29.29
	Jul	1.00	40.22	29.57	0.64	55.22	39.57		Jul	2.55	40.22	29.57	1.27	85.02	30.57
	Aug	1.00	40.89	30.13	0.64	55.89	40.13		Aug	2.55	40.89	30.13	1.27	85.69	31.13
	Sep	1.00	41.56	29.30	0.64	56.56	39.30		Sep	2.55	41.56	29.30	1.27	86.36	30.30
	Oct	1.00	41.70	27.89	0.64	56.70	37.89		Oct	2.55	41.70	27.89	1.27	86.50	28.89
	Nov	1.00	41.64	24.81	0.64	56.64	34.81		Nov	2.55	41.64	24.81	1.27	86.44	25.81
	Dec	1.00	41.38	21.02	0.64	56.38	31.02		Dec	2.55	41.38	21.02	1.27	86.18	22.02
2011	Jan	1.05	41.20	17.79	0.67	56.20	27.79	2011	Jan	2.67	41.20	17.79	1.34	86.00	18.79
	Feb	1.05	41.17	17.25	0.67	56.17	27.25		Feb	2.67	41.17	17.25	1.34	85.97	18.25
	Mar	1.05	40.89	19.14	0.67	55.89	29.14		Mar	2.67	40.89	19.14	1.34	85.69	20.14
	Apr	1.05	40.89	22.42	0.67	55.89	32.42		Apr	2.67	40.89	22.42	1.34	85.69	23.42
	May	1.05	39.84	26.01	0.67	54.84	36.01		May	2.67	39.84	26.01	1.34	84.64	27.01
	Jun	1.05	40.19	28.23	0.67	55.19	38.23		Jun	2.67	40.19	28.23	1.34	84.99	29.23
	Jul	1.05	40.10	29.60	0.67	55.10	39.60		Jul	2.67	40.10	29.60	1.34	84.90	30.60
	Aug	1.05	40.30	29.91	0.67	55.30	39.91		Aug	2.67	40.30	29.91	1.34	85.10	30.91
	Sep	1.05	40.71	29.46	0.67	55.71	39.46		Sep	2.67	40.71	29.46	1.34	85.51	30.46
	Oct	1.05	40.86	28.03	0.67	55.86	38.03		Oct	2.67	40.86	28.03	1.34	85.66	29.03
	Nov	1.05	41.07	24.18	0.67	56.07	34.18		Nov	2.67	41.07	24.18	1.34	85.87	25.18
	Dec	1.05	40.76	20.72	0.67	55.76	30.72		Dec	2.67	40.76	20.72	1.34	85.56	21.72
2012	Jan	1.10	40.32	17.54	0.70	55.32	27.54	2012	Jan	2.80	40.32	17.54	1.40	85.12	18.54
	Feb	1.10	40.42	17.22	0.70	55.42	27.22		Feb	2.80	40.42	17.22	1.40	85.22	18.22
	Mar	1.10	40.47	19.16	0.70	55.47	29.16		Mar	2.80	40.47	19.16	1.40	85.27	20.16
	Apr	1.10	40.68	22.33	0.70	55.68	32.33		Apr	2.80	40.68	22.33	1.40	85.48	23.33

	May	1.10	40.06	26.48	0.70	55.06	36.48		May	2.80	40.06	26.48	1.40	84.86	27.48
	Jun	1.10	39.94	28.29	0.70	54.94	38.29		Jun	2.80	39.94	28.29	1.40	84.74	29.29
	Jul	1.10	40.10	30.07	0.70	55.10	40.07		Jul	2.80	40.10	30.07	1.40	84.90	31.07
	Aug	1.10	40.75	30.39	0.70	55.75	40.39		Aug	2.80	40.75	30.39	1.40	85.55	31.39
	Sep	1.10	40.72	29.35	0.70	55.72	39.35		Sep	2.80	40.72	29.35	1.40	85.52	30.35
	Oct	1.10	41.36	27.84	0.70	56.36	37.84		Oct	2.80	41.36	27.84	1.40	86.16	28.84
	Nov	1.10	41.52	24.71	0.70	56.52	34.71		Nov	2.80	41.52	24.71	1.40	86.32	25.71
	Dec	1.10	41.32	20.71	0.70	56.32	30.71		Dec	2.80	41.32	20.71	1.40	86.12	21.71
2013	Jan	1.15	40.70	17.69	0.73	55.70	27.69	2013	Jan	2.93	40.70	17.69	1.46	85.50	18.69
	Feb	1.15	40.55	17.58	0.73	55.55	27.58		Feb	2.93	40.55	17.58	1.46	85.35	18.58
	Mar	1.15	40.57	19.47	0.73	55.57	29.47		Mar	2.93	40.57	19.47	1.46	85.37	20.47
	Apr	1.15	39.80	23.02	0.73	54.80	33.02		Apr	2.93	39.80	23.02	1.46	84.60	24.02
	May	1.15	39.97	26.52	0.73	54.97	36.52		May	2.93	39.97	26.52	1.46	84.77	27.52
	Jun	1.15	39.74	28.06	0.73	54.74	38.06		Jun	2.93	39.74	28.06	1.46	84.54	29.06
	Jul	1.15	40.48	30.10	0.73	55.48	40.10		Jul	2.93	40.48	30.10	1.46	85.28	31.10
	Aug	1.15	40.77	29.22	0.73	55.77	39.22		Aug	2.93	40.77	29.22	1.46	85.57	30.22
	Sep	1.15	41.15	29.25	0.73	56.15	39.25		Sep	2.93	41.15	29.25	1.46	85.95	30.25
	Oct	1.15	41.63	27.66	0.73	56.63	37.66		Oct	2.93	41.63	27.66	1.46	86.43	28.66
	Nov	1.15	41.13	24.65	0.73	56.13	34.65		Nov	2.93	41.13	24.65	1.46	85.93	25.65
	Dec	1.15	40.95	20.69	0.73	55.95	30.69		Dec	2.93	40.95	20.69	1.46	85.75	21.69
2014	Jan	1.20	40.99	17.21	0.76	55.99	27.21	2014	Jan	3.05	40.99	17.21	1.53	85.79	18.21
	Feb	1.20	40.46	17.50	0.76	55.46	27.50		Feb	3.05	40.46	17.50	1.53	85.26	18.50
	Mar	1.20	40.41	19.31	0.76	55.41	29.31		Mar	3.05	40.41	19.31	1.53	85.21	20.31
	Apr	1.20	40.10	22.60	0.76	55.10	32.60		Apr	3.05	40.10	22.60	1.53	84.90	23.60
	May	1.20	40.11	26.31	0.76	55.11	36.31		May	3.05	40.11	26.31	1.53	84.91	27.31
	Jun	1.20	39.63	28.41	0.76	54.63	38.41		Jun	3.05	39.63	28.41	1.53	84.43	29.41
	Jul	1.20	39.99	30.17	0.76	54.99	40.17		Jul	3.05	39.99	30.17	1.53	84.79	31.17
	Aug	1.20	40.31	29.98	0.76	55.31	39.98		Aug	3.05	40.31	29.98	1.53	85.11	30.98
	Sep	1.20	41.26	29.05	0.76	56.26	39.05		Sep	3.05	41.26	29.05	1.53	86.06	30.05
	Oct	1.20	40.94	27.96	0.76	55.94	37.96		Oct	3.05	40.94	27.96	1.53	85.74	28.96
	Nov	1.20	41.55	24.48	0.76	56.55	34.48		Nov	3.05	41.55	24.48	1.53	86.35	25.48
	Dec	1.20	41.45	20.43	0.76	56.45	30.43		Dec	3.05	41.45	20.43	1.53	86.25	21.43
2015	Jan	1.25	40.93	17.51	0.80	55.93	27.51	2015	Jan	3.18	40.93	17.51	1.59	85.73	18.51
	Feb	1.25	40.85	17.46	0.80	55.85	27.46		Feb	3.18	40.85	17.46	1.59	85.65	18.46
	Mar	1.25	40.41	19.31	0.80	55.41	29.31		Mar	3.18	40.41	19.31	1.59	85.21	20.31
	Apr	1.25	40.85	23.07	0.80	55.85	33.07		Apr	3.18	40.85	23.07	1.59	85.65	24.07
	May	1.25	40.58	26.21	0.80	55.58	36.21		May	3.18	40.58	26.21	1.59	85.38	27.21
	Jun	1.25	40.08	27.97	0.80	55.08	37.97		Jun	3.18	40.08	27.97	1.59	84.88	28.97
	Jul	1.25	40.85	29.88	0.80	55.85	39.88		Jul	3.18	40.85	29.88	1.59	85.65	30.88
	Aug	1.25	40.85	30.43	0.80	55.85	40.43		Aug	3.18	40.85	30.43	1.59	85.65	31.43
	Sep	1.25	41.00	29.61	0.80	56.00	39.61		Sep	3.18	41.00	29.61	1.59	85.80	30.61
	Oct	1.25	42.00	28.14	0.80	57.00	38.14		Oct	3.18	42.00	28.14	1.59	86.80	29.14
	Nov	1.25	41.83	24.51	0.80	56.83	34.51		Nov	3.18	41.83	24.51	1.59	86.63	25.51
	Dec	1.25	40.86	20.46	0.80	55.86	30.46		Dec	3.18	40.86	20.46	1.59	85.66	21.46

UAE (Tawila) MSF		Inflow			Outflow			UAE (Tawila) MED	Inflow			Outflow			
		F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)		F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)	
2004	Jan	35.37	40.83	17.61	26.55	50.83	27.61	2004	Jan	5.35	40.83	17.61	3.56	55.83	27.61
	Feb	35.37	40.71	17.05	26.55	50.71	27.05		Feb	5.35	40.71	17.05	3.56	55.71	27.05
	Mar	35.37	40.55	19.15	26.55	50.55	29.15		Mar	5.35	40.55	19.15	3.56	55.55	29.15
	Apr	35.37	40.47	22.94	26.55	50.47	32.94		Apr	5.35	40.47	22.94	3.56	55.47	32.94
	May	35.37	39.78	25.90	26.55	49.78	35.90		May	5.35	39.78	25.90	3.56	54.78	35.90
	Jun	35.37	40.50	28.21	26.55	50.50	38.21		Jun	5.35	40.50	28.21	3.56	55.50	38.21
	Jul	35.37	39.87	29.68	26.55	49.87	39.68		Jul	5.35	39.87	29.68	3.56	54.87	39.68
	Aug	35.37	40.50	30.21	26.55	50.50	40.21		Aug	5.35	40.50	30.21	3.56	55.50	40.21
	Sep	35.37	40.56	29.50	26.55	50.56	39.50		Sep	5.35	40.56	29.50	3.56	55.56	39.50
	Oct	35.37	41.42	27.94	26.55	51.42	37.94		Oct	5.35	41.42	27.94	3.56	56.42	37.94
	Nov	35.37	41.55	24.90	26.55	51.55	34.90		Nov	5.35	41.55	24.90	3.56	56.55	34.90
	Dec	35.37	41.61	20.61	26.55	51.61	30.61		Dec	5.35	41.61	20.61	3.56	56.61	30.61
2005	Jan	37.41	41.47	16.94	28.08	51.47	26.94	2005	Jan	5.73	41.47	16.94	3.82	56.47	26.94
	Feb	37.41	40.48	17.28	28.08	50.48	27.28		Feb	5.73	40.48	17.28	3.82	55.48	27.28

	Mar	37.41	40.79	19.26	28.08	50.79	29.26		Mar	5.73	40.79	19.26	3.82	55.79	29.26
	Apr	37.41	40.36	22.80	28.08	50.36	32.80		Apr	5.73	40.36	22.80	3.82	55.36	32.80
	May	37.41	40.23	26.34	28.08	50.23	36.34		May	5.73	40.23	26.34	3.82	55.23	36.34
	Jun	37.41	39.98	28.39	28.08	49.98	38.39		Jun	5.73	39.98	28.39	3.82	54.98	38.39
	Jul	37.41	40.44	29.44	28.08	50.44	39.44		Jul	5.73	40.44	29.44	3.82	55.44	39.44
	Aug	37.41	40.94	30.41	28.08	50.94	40.41		Aug	5.73	40.94	30.41	3.82	55.94	40.41
	Sep	37.41	41.14	29.65	28.08	51.14	39.65		Sep	5.73	41.14	29.65	3.82	56.14	39.65
	Oct	37.41	41.31	28.10	28.08	51.31	38.10		Oct	5.73	41.31	28.10	3.82	56.31	38.10
	Nov	37.41	41.18	24.65	28.08	51.18	34.65		Nov	5.73	41.18	24.65	3.82	56.18	34.65
	Dec	37.41	41.16	20.44	28.08	51.16	30.44		Dec	5.73	41.16	20.44	3.82	56.16	30.44
2006	Jan	39.45	41.13	17.45	29.61	51.13	27.43	2006	Jan	6.11	41.13	17.45	4.07	56.13	27.43
	Feb	39.45	40.49	17.08	29.61	50.49	27.08		Feb	6.11	40.49	17.08	4.07	55.49	27.08
	Mar	39.45	40.41	19.37	29.61	50.41	29.37		Mar	6.11	40.41	19.37	4.07	55.41	29.37
	Apr	39.45	40.17	22.48	29.61	50.17	32.48		Apr	6.11	40.17	22.48	4.07	55.17	32.48
	May	39.45	39.98	25.95	29.61	49.98	35.95		May	6.11	39.98	25.95	4.07	54.98	35.95
	Jun	39.45	39.70	28.18	29.61	49.70	38.18		Jun	6.11	39.70	28.18	4.07	54.70	38.18
	Jul	39.45	40.05	29.78	29.61	50.05	39.78		Jul	6.11	40.05	29.78	4.07	55.05	39.78
	Aug	39.45	40.80	30.30	29.61	50.80	40.30		Aug	6.11	40.80	30.30	4.07	55.80	40.30
	Sep	39.45	40.98	29.40	29.61	50.98	39.40		Sep	6.11	40.98	29.40	4.07	55.98	39.40
	Oct	39.45	41.33	27.96	29.61	51.33	37.96		Oct	6.11	41.33	27.96	4.07	56.33	37.96
	Nov	39.45	41.95	24.59	29.61	51.95	34.59		Nov	6.11	41.95	24.59	4.07	56.95	34.59
	Dec	39.45	40.90	21.14	29.61	50.90	31.14		Dec	6.11	40.90	21.14	4.07	55.90	31.14
2007	Jan	41.50	41.37	17.22	31.14	51.37	27.22	2007	Jan	6.49	41.37	17.22	4.33	56.37	27.22
	Feb	41.50	40.90	16.96	31.14	50.90	26.96		Feb	6.49	40.90	16.96	4.33	55.90	26.96
	Mar	41.50	40.59	19.29	31.14	50.59	29.29		Mar	6.49	40.59	19.29	4.33	55.59	29.29
	Apr	41.50	41.11	22.42	31.14	51.11	32.42		Apr	6.49	41.11	22.42	4.33	56.11	32.42
	May	41.50	39.91	26.14	31.14	49.91	36.14		May	6.49	39.91	26.14	4.33	54.91	36.14
	Jun	41.50	39.85	28.30	31.14	49.85	38.30		Jun	6.49	39.85	28.30	4.33	54.85	38.30
	Jul	41.50	40.17	29.93	31.14	50.17	39.93		Jul	6.49	40.17	29.93	4.33	55.17	39.93
	Aug	41.50	40.71	29.91	31.14	50.71	39.91		Aug	6.49	40.71	29.91	4.33	55.71	39.91
	Sep	41.50	41.17	29.27	31.14	51.17	39.27		Sep	6.49	41.17	29.27	4.33	56.17	39.27
	Oct	41.50	42.01	28.10	31.14	52.01	38.10		Oct	6.49	42.01	28.10	4.33	57.01	38.10
	Nov	41.50	41.90	24.44	31.14	51.90	34.44		Nov	6.49	41.90	24.44	4.33	56.90	34.44
	Dec	41.50	40.62	20.56	31.14	50.62	30.56		Dec	6.49	40.62	20.56	4.33	55.62	30.56
2008	Jan	43.54	40.60	17.70	32.67	50.60	27.70	2008	Jan	6.87	40.60	17.70	4.58	55.60	27.70
	Feb	43.54	40.32	17.41	32.67	50.32	27.41		Feb	6.87	40.32	17.41	4.58	55.32	27.41
	Mar	43.54	40.62	19.20	32.67	50.62	29.20		Mar	6.87	40.62	19.20	4.58	55.62	29.20
	Apr	43.54	40.49	23.29	32.67	50.49	33.29		Apr	6.87	40.49	23.29	4.58	55.49	33.29
	May	43.54	39.99	26.38	32.67	49.99	36.38		May	6.87	39.99	26.38	4.58	54.99	36.38
	Jun	43.54	39.94	28.32	32.67	49.94	38.32		Jun	6.87	39.94	28.32	4.58	54.94	38.32
	Jul	43.54	40.72	30.20	32.67	50.72	40.20		Jul	6.87	40.72	30.20	4.58	55.72	40.20
	Aug	43.54	40.12	30.18	32.67	50.12	40.18		Aug	6.87	40.12	30.18	4.58	55.12	40.18
	Sep	43.54	40.89	29.22	32.67	50.89	39.22		Sep	6.87	40.89	29.22	4.58	55.89	39.22
	Oct	43.54	41.36	27.76	32.67	51.36	37.76		Oct	6.87	41.36	27.76	4.58	56.36	37.76
	Nov	43.54	41.52	24.81	32.67	51.52	34.81		Nov	6.87	41.52	24.81	4.58	56.52	34.81
	Dec	43.54	41.16	20.68	32.67	51.16	30.68		Dec	6.87	41.16	20.68	4.58	56.16	30.68
2009	Jan	45.58	40.73	17.91	34.20	50.73	27.91	2009	Jan	7.25	40.73	17.91	4.84	55.73	27.91
	Feb	45.58	40.47	17.79	34.20	50.47	27.79		Feb	7.25	40.47	17.79	4.84	55.47	27.79
	Mar	45.58	40.76	19.74	34.20	50.76	29.74		Mar	7.25	40.76	19.74	4.84	55.76	29.74
	Apr	45.58	39.92	22.20	34.20	49.92	32.20		Apr	7.25	39.92	22.20	4.84	54.92	32.20
	May	45.58	40.06	26.12	34.20	50.06	36.12		May	7.25	40.06	26.12	4.84	55.06	36.12
	Jun	45.58	40.09	28.37	34.20	50.09	38.37		Jun	7.25	40.09	28.37	4.84	55.09	38.37
	Jul	45.58	40.24	30.17	34.20	50.24	40.17		Jul	7.25	40.24	30.17	4.84	55.24	40.17
	Aug	45.58	41.03	30.26	34.20	51.03	40.26		Aug	7.25	41.03	30.26	4.84	56.03	40.26
	Sep	45.58	41.31	29.42	34.20	51.31	39.42		Sep	7.25	41.31	29.42	4.84	56.31	39.42
	Oct	45.58	41.64	27.68	34.20	51.64	37.68		Oct	7.25	41.64	27.68	4.84	56.64	37.68
	Nov	45.58	40.69	24.99	34.20	50.69	34.99		Nov	7.25	40.69	24.99	4.84	55.69	34.99
	Dec	45.58	40.64	21.09	34.20	50.64	31.09		Dec	7.25	40.64	21.09	4.84	55.64	31.09
2010	Jan	47.62	40.80	17.59	35.74	50.80	27.59	2010	Jan	7.64	40.80	17.59	5.09	55.80	27.59
	Feb	47.62	40.09	17.70	35.74	50.09	27.70		Feb	7.64	40.09	17.70	5.09	55.09	27.70
	Mar	47.62	40.47	19.42	35.74	50.47	29.42		Mar	7.64	40.47	19.42	5.09	55.47	29.42
	Apr	47.62	40.20	22.74	35.74	50.20	32.74		Apr	7.64	40.20	22.74	5.09	55.20	32.74
	May	47.62	39.70	26.05	35.74	49.70	36.05		May	7.64	39.70	26.05	5.09	54.70	36.05
	Jun	47.62	39.80	28.29	35.74	49.80	38.29		Jun	7.64	39.80	28.29	5.09	54.80	38.29

	Jul	47.62	40.22	29.57	35.74	50.22	39.57		Jul	7.64	40.22	29.57	5.09	55.22	39.57
	Aug	47.62	40.89	30.13	35.74	50.89	40.13		Aug	7.64	40.89	30.13	5.09	55.89	40.13
	Sep	47.62	41.56	29.30	35.74	51.56	39.30		Sep	7.64	41.56	29.30	5.09	56.56	39.30
	Oct	47.62	41.70	27.89	35.74	51.70	37.89		Oct	7.64	41.70	27.89	5.09	56.70	37.89
	Nov	47.62	41.64	24.81	35.74	51.64	34.81		Nov	7.64	41.64	24.81	5.09	56.64	34.81
	Dec	47.62	41.38	21.02	35.74	51.38	31.02		Dec	7.64	41.38	21.02	5.09	56.38	31.02
	Jan	49.66	41.20	17.79	37.27	51.20	27.79		Jan	8.02	41.20	17.79	5.35	56.20	27.79
	Feb	49.66	41.17	17.25	37.27	51.17	27.25		Feb	8.02	41.17	17.25	5.35	56.17	27.25
	Mar	49.66	40.89	19.14	37.27	50.89	29.14		Mar	8.02	40.89	19.14	5.35	55.89	29.14
	Apr	49.66	40.89	22.42	37.27	50.89	32.42		Apr	8.02	40.89	22.42	5.35	55.89	32.42
2011	May	49.66	39.84	26.01	37.27	49.84	36.01	2011	May	8.02	39.84	26.01	5.35	54.84	36.01
	Jun	49.66	40.19	28.23	37.27	50.19	38.23		Jun	8.02	40.19	28.23	5.35	55.19	38.23
	Jul	49.66	40.10	29.60	37.27	50.10	39.60		Jul	8.02	40.10	29.60	5.35	55.10	39.60
	Aug	49.66	40.30	29.91	37.27	50.30	39.91		Aug	8.02	40.30	29.91	5.35	55.30	39.91
	Sep	49.66	40.71	29.46	37.27	50.71	39.46		Sep	8.02	40.71	29.46	5.35	55.71	39.46
	Oct	49.66	40.86	28.03	37.27	50.86	38.03	2011	Oct	8.02	40.86	28.03	5.35	55.86	38.03
	Nov	49.66	41.07	24.18	37.27	51.07	34.18		Nov	8.02	41.07	24.18	5.35	56.07	34.18
	Dec	49.66	40.76	20.72	37.27	50.76	30.72		Dec	8.02	40.76	20.72	5.35	55.76	30.72
	Jan	51.70	40.32	17.54	38.80	50.32	27.54		Jan	8.40	40.32	17.54	5.60	55.32	27.54
	Feb	51.70	40.42	17.22	38.80	50.42	27.22		Feb	8.40	40.42	17.22	5.60	55.42	27.22
	Mar	51.70	40.47	19.16	38.80	50.47	29.16	2012	Mar	8.40	40.47	19.16	5.60	55.47	29.16
	Apr	51.70	40.68	22.33	38.80	50.68	32.33		Apr	8.40	40.68	22.33	5.60	55.68	32.33
	May	51.70	40.06	26.48	38.80	50.06	36.48		May	8.40	40.06	26.48	5.60	55.06	36.48
	Jun	51.70	39.94	28.29	38.80	49.94	38.29		Jun	8.40	39.94	28.29	5.60	54.94	38.29
	Jul	51.70	40.10	30.07	38.80	50.10	40.07		Jul	8.40	40.10	30.07	5.60	55.10	40.07
2012	Aug	51.70	40.75	30.39	38.80	50.75	40.39	2012	Aug	8.40	40.75	30.39	5.60	55.75	40.39
	Sep	51.70	40.72	29.35	38.80	50.72	39.35		Sep	8.40	40.72	29.35	5.60	55.72	39.35
	Oct	51.70	41.36	27.84	38.80	51.36	37.84		Oct	8.40	41.36	27.84	5.60	56.36	37.84
	Nov	51.70	41.52	24.71	38.80	51.52	34.71		Nov	8.40	41.52	24.71	5.60	56.52	34.71
	Dec	51.70	41.32	20.71	38.80	51.32	30.71		Dec	8.40	41.32	20.71	5.60	56.32	30.71
	Jan	53.74	40.70	17.69	40.33	50.70	27.69	2013	Jan	8.78	40.70	17.69	5.85	55.70	27.69
	Feb	53.74	40.55	17.58	40.33	50.55	27.58		Feb	8.78	40.55	17.58	5.85	55.55	27.58
	Mar	53.74	40.57	19.47	40.33	50.57	29.47		Mar	8.78	40.57	19.47	5.85	55.57	29.47
	Apr	53.74	39.80	23.02	40.33	49.80	33.02		Apr	8.78	39.80	23.02	5.85	54.80	33.02
	May	53.74	39.97	26.52	40.33	49.97	36.52		May	8.78	39.97	26.52	5.85	54.97	36.52
	Jun	53.74	39.74	28.06	40.33	49.74	38.06	2013	Jun	8.78	39.74	28.06	5.85	54.74	38.06
	Jul	53.74	40.48	30.10	40.33	50.48	40.10		Jul	8.78	40.48	30.10	5.85	55.48	40.10
	Aug	53.74	40.77	29.22	40.33	50.77	39.22		Aug	8.78	40.77	29.22	5.85	55.77	39.22
	Sep	53.74	41.15	29.25	40.33	51.15	39.25		Sep	8.78	41.15	29.25	5.85	56.15	39.25
	Oct	53.74	41.63	27.66	40.33	51.63	37.66		Oct	8.78	41.63	27.66	5.85	56.63	37.66
	Nov	53.74	41.13	24.65	40.33	51.13	34.65	2013	Nov	8.78	41.13	24.65	5.85	56.13	34.65
	Dec	53.74	40.95	20.69	40.33	50.95	30.69		Dec	8.78	40.95	20.69	5.85	55.95	30.69
	Jan	55.78	40.99	17.21	41.86	50.99	27.21		Jan	9.16	40.99	17.21	6.11	55.99	27.21
	Feb	55.78	40.46	17.50	41.86	50.46	27.50		Feb	9.16	40.46	17.50	6.11	55.46	27.50
	Mar	55.78	40.41	19.31	41.86	50.41	29.31		Mar	9.16	40.41	19.31	6.11	55.41	29.31
	Apr	55.78	40.10	22.60	41.86	50.10	32.60	2014	Apr	9.16	40.10	22.60	6.11	55.10	32.60
	May	55.78	40.11	26.31	41.86	50.11	36.31		May	9.16	40.11	26.31	6.11	55.11	36.31
	Jun	55.78	39.63	28.41	41.86	49.63	38.41		Jun	9.16	39.63	28.41	6.11	54.63	38.41
	Jul	55.78	39.99	30.17	41.86	49.99	40.17		Jul	9.16	39.99	30.17	6.11	54.99	40.17
	Aug	55.78	40.31	29.98	41.86	50.31	39.98		Aug	9.16	40.31	29.98	6.11	55.31	39.98
	Sep	55.78	41.26	29.05	41.86	51.26	39.05	2014	Sep	9.16	41.26	29.05	6.11	56.26	39.05
	Oct	55.78	40.94	27.96	41.86	50.94	37.96		Oct	9.16	40.94	27.96	6.11	55.94	37.96
	Nov	55.78	41.55	24.48	41.86	51.55	34.48		Nov	9.16	41.55	24.48	6.11	56.55	34.48
	Dec	55.78	41.45	20.43	41.86	51.45	30.43		Dec	9.16	41.45	20.43	6.11	56.45	30.43
	Jan	57.82	40.93	17.51	43.40	50.93	27.51	2015	Jan	9.55	40.93	17.51	6.36	55.93	27.51
	Feb	57.82	40.85	17.46	43.40	50.85	27.46		Feb	9.55	40.85	17.46	6.36	55.85	27.46
	Mar	57.82	40.41	19.31	43.40	50.41	29.31		Mar	9.55	40.41	19.31	6.36	55.41	29.31
	Apr	57.82	40.85	23.07	43.40	50.85	33.07		Apr	9.55	40.85	23.07	6.36	55.85	33.07
	May	57.82	40.58	26.21	43.40	50.58	36.21		May	9.55	40.58	26.21	6.36	55.58	36.21
2015	Jun	57.82	40.08	27.97	43.40	50.08	37.97	2015	Jun	9.55	40.08	27.97	6.36	55.08	37.97
	Jul	57.82	40.85	29.88	43.40	50.85	39.88		Jul	9.55	40.85	29.88	6.36	55.85	39.88
	Aug	57.82	40.85	30.43	43.40	50.85	40.43		Aug	9.55	40.85	30.43	6.36	55.85	40.43
	Sep	57.82	41.00	29.61	43.40	51.00	39.61		Sep	9.55	41.00	29.61	6.36	56.00	39.61
	Oct	57.82	42.00	28.14	43.40	52.00	38.14		Oct	9.55	42.00	28.14	6.36	57.00	38.14

	Nov	57.82	41.83	24.51	43.40	51.83	34.51		Nov	9.55	41.83	24.51	6.36	56.83	34.51
	Dec	57.82	40.86	20.46	43.40	50.86	30.46		Dec	9.55	40.86	20.46	6.36	55.86	30.46

UAE (Tawila) RO		Inflow			Outflow			UAE (JabalAli) MSF		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	2.29	40.83	17.61	1.15	85.63	18.61	2004	Jan	73.65	39.29	18.88	55.22	49.29	28.88
	Feb	2.29	40.71	17.05	1.15	85.51	18.05		Feb	73.65	39.30	17.88	55.22	49.30	27.88
	Mar	2.29	40.55	19.15	1.15	85.35	20.15		Mar	73.65	39.16	19.06	55.22	49.16	29.06
	Apr	2.29	40.47	22.94	1.15	85.27	23.94		Apr	73.65	38.94	21.99	55.22	48.94	31.99
	May	2.29	39.78	25.90	1.15	84.58	26.90		May	73.65	38.69	25.19	55.22	48.69	35.19
	Jun	2.29	40.50	28.21	1.15	85.30	29.21		Jun	73.65	38.72	27.56	55.22	48.72	37.56
	Jul	2.29	39.87	29.68	1.15	84.67	30.68		Jul	73.65	39.24	29.57	55.22	49.24	39.57
	Aug	2.29	40.50	30.21	1.15	85.30	31.21		Aug	73.65	39.07	29.91	55.22	49.07	39.91
	Sep	2.29	40.56	29.50	1.15	85.36	30.50		Sep	73.65	39.45	29.53	55.22	49.45	39.53
	Oct	2.29	41.42	27.94	1.15	86.22	28.94		Oct	73.65	39.58	28.26	55.22	49.58	38.26
	Nov	2.29	41.55	24.90	1.15	86.35	25.90		Nov	73.65	39.43	25.83	55.22	49.43	35.83
	Dec	2.29	41.61	20.61	1.15	86.41	21.61		Dec	73.65	39.90	22.11	55.22	49.90	32.11
2005	Jan	2.45	41.47	16.94	1.23	86.27	17.94	2005	Jan	78.08	39.99	18.49	58.54	49.99	28.49
	Feb	2.45	40.48	17.28	1.23	85.28	18.28		Feb	78.08	39.24	17.99	58.54	49.24	27.99
	Mar	2.45	40.79	19.26	1.23	85.59	20.26		Mar	78.08	38.95	19.12	58.54	48.95	29.12
	Apr	2.45	40.36	22.80	1.23	85.16	23.80		Apr	78.08	39.04	22.24	58.54	49.04	32.24
	May	2.45	40.23	26.34	1.23	85.03	27.34		May	78.08	38.36	24.67	58.54	48.36	34.67
	Jun	2.45	39.98	28.39	1.23	84.78	29.39		Jun	78.08	38.79	27.55	58.54	48.79	37.55
	Jul	2.45	40.44	29.44	1.23	85.24	30.44		Jul	78.08	39.40	29.35	58.54	49.40	39.35
	Aug	2.45	40.94	30.41	1.23	85.74	31.41		Aug	78.08	39.71	30.11	58.54	49.71	40.11
	Sep	2.45	41.14	29.65	1.23	85.94	30.65		Sep	78.08	39.91	29.64	58.54	49.91	39.64
	Oct	2.45	41.31	28.10	1.23	86.11	29.10		Oct	78.08	39.71	28.39	58.54	49.71	38.39
	Nov	2.45	41.18	24.65	1.23	85.98	25.65		Nov	78.08	38.98	25.62	58.54	48.98	35.62
	Dec	2.45	41.16	20.44	1.23	85.96	21.44		Dec	78.08	39.47	21.97	58.54	49.47	31.97
2006	Jan	2.62	41.13	17.45	1.31	85.93	18.43	2006	Jan	82.51	39.92	19.02	61.86	49.92	29.02
	Feb	2.62	40.49	17.08	1.31	85.29	18.08		Feb	82.51	39.20	17.96	61.86	49.20	27.96
	Mar	2.62	40.41	19.37	1.31	85.21	20.37		Mar	82.51	38.87	19.13	61.86	48.87	29.13
	Apr	2.62	40.17	22.48	1.31	84.97	23.48		Apr	82.51	38.97	21.80	61.86	48.97	31.80
	May	2.62	39.98	25.95	1.31	84.78	26.95		May	82.51	38.41	24.66	61.86	48.41	34.66
	Jun	2.62	39.70	28.18	1.31	84.50	29.18		Jun	82.51	38.85	27.80	61.86	48.85	37.80
	Jul	2.62	40.05	29.78	1.31	84.85	30.78		Jul	82.51	39.35	29.47	61.86	49.35	39.47
	Aug	2.62	40.80	30.30	1.31	85.60	31.30		Aug	82.51	39.68	30.09	61.86	49.68	40.09
	Sep	2.62	40.98	29.40	1.31	85.78	30.40		Sep	82.51	39.92	29.39	61.86	49.92	39.39
	Oct	2.62	41.33	27.96	1.31	86.13	28.96		Oct	82.51	39.58	28.33	61.86	49.58	38.33
	Nov	2.62	41.95	24.59	1.31	86.75	25.59		Nov	82.51	39.27	25.67	61.86	49.27	35.67
	Dec	2.62	40.90	21.14	1.31	85.70	22.14		Dec	82.51	39.34	22.03	61.86	49.34	32.03
2007	Jan	2.78	41.37	17.22	1.39	86.17	18.22	2007	Jan	86.94	39.80	18.87	65.19	49.80	28.87
	Feb	2.78	40.90	16.96	1.39	85.70	17.96		Feb	86.94	39.24	17.93	65.19	49.24	27.93
	Mar	2.78	40.59	19.29	1.39	85.39	20.29		Mar	86.94	39.04	19.03	65.19	49.04	29.03
	Apr	2.78	41.11	22.42	1.39	85.91	23.42		Apr	86.94	38.59	21.44	65.19	48.59	31.44
	May	2.78	39.91	26.14	1.39	84.71	27.14		May	86.94	38.82	25.23	65.19	48.82	35.23
	Jun	2.78	39.85	28.30	1.39	84.65	29.30		Jun	86.94	38.89	27.70	65.19	48.89	37.70
	Jul	2.78	40.17	29.93	1.39	84.97	30.93		Jul	86.94	39.26	29.65	65.19	49.26	39.65
	Aug	2.78	40.71	29.91	1.39	85.51	30.91		Aug	86.94	39.84	29.96	65.19	49.84	39.96
	Sep	2.78	41.17	29.27	1.39	85.97	30.27		Sep	86.94	39.11	29.16	65.19	49.11	39.16
	Oct	2.78	42.01	28.10	1.39	86.81	29.10		Oct	86.94	39.51	28.40	65.19	49.51	38.40
	Nov	2.78	41.90	24.44	1.39	86.70	25.44		Nov	86.94	39.52	25.63	65.19	49.52	35.63
	Dec	2.78	40.62	20.56	1.39	85.42	21.56		Dec	86.94	39.50	21.91	65.19	49.50	31.91
2008	Jan	2.95	40.60	17.70	1.47	85.40	18.70	2008	Jan	91.37	39.88	18.76	68.51	49.88	28.76
	Feb	2.95	40.32	17.41	1.47	85.12	18.41		Feb	91.37	39.75	17.69	68.51	49.75	27.69
	Mar	2.95	40.62	19.20	1.47	85.42	20.20		Mar	91.37	39.23	18.91	68.51	49.23	28.91
	Apr	2.95	40.49	23.29	1.47	85.29	24.29		Apr	91.37	38.94	22.37	68.51	48.94	32.37
	May	2.95	39.99	26.38	1.47	84.79	27.38		May	91.37	38.69	25.14	68.51	48.69	35.14
	Jun	2.95	39.94	28.32	1.47	84.74	29.32		Jun	91.37	38.85	27.66	68.51	48.85	37.66
	Jul	2.95	40.72	30.20	1.47	85.52	31.20		Jul	91.37	38.98	29.49	68.51	48.98	39.49
	Aug	2.95	40.12	30.18	1.47	84.92	31.18		Aug	91.37	39.75	30.34	68.51	49.75	40.34

	Sep	2.95	40.89	29.22	1.47	85.69	30.22		Sep	91.37	39.34	29.34	68.51	49.34	39.34
	Oct	2.95	41.36	27.76	1.47	86.16	28.76		Oct	91.37	39.58	28.20	68.51	49.58	38.20
	Nov	2.95	41.52	24.81	1.47	86.32	25.81		Nov	91.37	39.51	25.64	68.51	49.51	35.64
	Dec	2.95	41.16	20.68	1.47	85.96	21.68		Dec	91.37	39.20	22.56	68.51	49.20	32.56
2009	Jan	3.11	40.73	17.91	1.55	85.53	18.91	2009	Jan	95.80	39.08	19.58	71.83	49.08	29.58
	Feb	3.11	40.47	17.79	1.55	85.27	18.79		Feb	95.80	38.65	18.81	71.83	48.65	28.81
	Mar	3.11	40.76	19.74	1.55	85.56	20.74		Mar	95.80	39.01	19.35	71.83	49.01	29.35
	Apr	3.11	39.92	22.20	1.55	84.72	23.20		Apr	95.80	38.93	21.44	71.83	48.93	31.44
	May	3.11	40.06	26.12	1.55	84.86	27.12		May	95.80	39.18	24.98	71.83	49.18	34.98
	Jun	3.11	40.09	28.37	1.55	84.89	29.37		Jun	95.80	39.10	27.67	71.83	49.10	37.67
	Jul	3.11	40.24	30.17	1.55	85.04	31.17		Jul	95.80	39.15	29.61	71.83	49.15	39.61
	Aug	3.11	41.03	30.26	1.55	85.83	31.26		Aug	95.80	40.22	30.54	71.83	50.22	40.54
	Sep	3.11	41.31	29.42	1.55	86.11	30.42		Sep	95.80	39.54	29.39	71.83	49.54	39.39
	Oct	3.11	41.64	27.68	1.55	86.44	28.68		Oct	95.80	40.05	28.13	71.83	50.05	38.13
	Nov	3.11	40.69	24.99	1.55	85.49	25.99		Nov	95.80	38.79	25.53	71.83	48.79	35.53
	Dec	3.11	40.64	21.09	1.55	85.44	22.09		Dec	95.80	38.89	22.78	71.83	48.89	32.78
2010	Jan	3.27	40.80	17.59	1.64	85.60	18.59	2010	Jan	100.24	39.44	19.29	75.15	49.44	29.29
	Feb	3.27	40.09	17.70	1.64	84.89	18.70		Feb	100.24	39.10	18.42	75.15	49.10	28.42
	Mar	3.27	40.47	19.42	1.64	85.27	20.42		Mar	100.24	39.29	19.27	75.15	49.29	29.27
	Apr	3.27	40.20	22.74	1.64	85.00	23.74		Apr	100.24	38.88	22.02	75.15	48.88	32.02
	May	3.27	39.70	26.05	1.64	84.50	27.05		May	100.24	38.64	25.25	75.15	48.64	35.25
	Jun	3.27	39.80	28.29	1.64	84.60	29.29		Jun	100.24	38.80	27.64	75.15	48.80	37.64
	Jul	3.27	40.22	29.57	1.64	85.02	30.57		Jul	100.24	39.10	29.38	75.15	49.10	39.38
	Aug	3.27	40.89	30.13	1.64	85.69	31.13		Aug	100.24	39.50	30.12	75.15	49.50	40.12
	Sep	3.27	41.56	29.30	1.64	86.36	30.30		Sep	100.24	39.23	29.20	75.15	49.23	39.20
	Oct	3.27	41.70	27.89	1.64	86.50	28.89		Oct	100.24	39.37	28.20	75.15	49.37	38.20
	Nov	3.27	41.64	24.81	1.64	86.44	25.81		Nov	100.24	39.65	25.75	75.15	49.65	35.75
	Dec	3.27	41.38	21.02	1.64	86.18	22.02		Dec	100.24	39.10	23.05	75.15	49.10	33.05
2011	Jan	3.44	41.20	17.79	1.72	86.00	18.79	2011	Jan	104.67	39.73	19.34	78.48	49.73	29.34
	Feb	3.44	41.17	17.25	1.72	85.97	18.25		Feb	104.67	39.31	18.45	78.48	49.31	28.45
	Mar	3.44	40.89	19.14	1.72	85.69	20.14		Mar	104.67	39.08	18.94	78.48	49.08	28.94
	Apr	3.44	40.89	22.42	1.72	85.69	23.42		Apr	104.67	39.11	21.80	78.48	49.11	31.80
	May	3.44	39.84	26.01	1.72	84.64	27.01		May	104.67	39.16	25.32	78.48	49.16	35.32
	Jun	3.44	40.19	28.23	1.72	84.99	29.23		Jun	104.67	39.05	27.85	78.48	49.05	37.85
	Jul	3.44	40.10	29.60	1.72	84.90	30.60		Jul	104.67	38.92	29.18	78.48	48.92	39.18
	Aug	3.44	40.30	29.91	1.72	85.10	30.91		Aug	104.67	39.50	30.15	78.48	49.50	40.15
	Sep	3.44	40.71	29.46	1.72	85.51	30.46		Sep	104.67	39.16	29.47	78.48	49.16	39.47
	Oct	3.44	40.86	28.03	1.72	85.66	29.03		Oct	104.67	39.47	28.42	78.48	49.47	38.42
	Nov	3.44	41.07	24.18	1.72	85.87	25.18		Nov	104.67	39.52	25.80	78.48	49.52	35.80
	Dec	3.44	40.76	20.72	1.72	85.56	21.72		Dec	104.67	39.69	22.56	78.48	49.69	32.56
2012	Jan	3.60	40.32	17.54	1.80	85.12	18.54	2012	Jan	109.10	39.69	18.86	81.80	49.69	28.86
	Feb	3.60	40.42	17.22	1.80	85.22	18.22		Feb	109.10	39.22	17.85	81.80	49.22	27.85
	Mar	3.60	40.47	19.16	1.80	85.27	20.16		Mar	109.10	39.34	18.91	81.80	49.34	28.91
	Apr	3.60	40.68	22.33	1.80	85.48	23.33		Apr	109.10	39.30	21.59	81.80	49.30	31.59
	May	3.60	40.06	26.48	1.80	84.86	27.48		May	109.10	39.00	25.58	81.80	49.00	35.58
	Jun	3.60	39.94	28.29	1.80	84.74	29.29		Jun	109.10	39.02	27.83	81.80	49.02	37.83
	Jul	3.60	40.10	30.07	1.80	84.90	31.07		Jul	109.10	39.25	29.84	81.80	49.25	39.84
	Aug	3.60	40.75	30.39	1.80	85.55	31.39		Aug	109.10	39.26	30.17	81.80	49.26	40.17
	Sep	3.60	40.72	29.35	1.80	85.52	30.35		Sep	109.10	39.54	29.70	81.80	49.54	39.70
	Oct	3.60	41.36	27.84	1.80	86.16	28.84		Oct	109.10	39.53	28.47	81.80	49.53	38.47
	Nov	3.60	41.52	24.71	1.80	86.32	25.71		Nov	109.10	39.16	26.07	81.80	49.16	36.07
	Dec	3.60	41.32	20.71	1.80	86.12	21.71		Dec	109.10	39.51	22.76	81.80	49.51	32.76
2013	Jan	3.76	40.70	17.69	1.88	85.50	18.69	2013	Jan	113.53	39.14	19.65	85.12	49.14	29.65
	Feb	3.76	40.55	17.58	1.88	85.35	18.58		Feb	113.53	39.45	18.07	85.12	49.45	28.07
	Mar	3.76	40.57	19.47	1.88	85.37	20.47		Mar	113.53	38.88	19.41	85.12	48.88	29.41
	Apr	3.76	39.80	23.02	1.88	84.60	24.02		Apr	113.53	38.86	22.40	85.12	48.86	32.40
	May	3.76	39.97	26.52	1.88	84.77	27.52		May	113.53	38.58	24.89	85.12	48.58	34.89
	Jun	3.76	39.74	28.06	1.88	84.54	29.06		Jun	113.53	38.89	27.81	85.12	48.89	37.81
	Jul	3.76	40.48	30.10	1.88	85.28	31.10		Jul	113.53	39.35	29.75	85.12	49.35	39.75
	Aug	3.76	40.77	29.22	1.88	85.57	30.22		Aug	113.53	40.05	29.76	85.12	50.05	39.76
	Sep	3.76	41.15	29.25	1.88	85.95	30.25		Sep	113.53	39.79	29.37	85.12	49.79	39.37
	Oct	3.76	41.63	27.66	1.88	86.43	28.66		Oct	113.53	39.69	28.15	85.12	49.69	38.15
	Nov	3.76	41.13	24.65	1.88	85.93	25.65		Nov	113.53	39.21	25.68	85.12	49.21	35.68
	Dec	3.76	40.95	20.69	1.88	85.75	21.69		Dec	113.53	39.01	22.82	85.12	49.01	32.82

2014	Jan	3.93	40.99	17.21	1.96	85.79	18.21	2014	Jan	117.96	39.66	18.80	88.45	49.66	28.80
	Feb	3.93	40.46	17.50	1.96	85.26	18.50		Feb	117.96	39.37	18.36	88.45	49.37	28.36
	Mar	3.93	40.41	19.31	1.96	85.21	20.31		Mar	117.96	39.18	19.30	88.45	49.18	29.30
	Apr	3.93	40.10	22.60	1.96	84.90	23.60		Apr	117.96	38.95	22.05	88.45	48.95	32.05
	May	3.93	40.11	26.31	1.96	84.91	27.31		May	117.96	38.97	25.49	88.45	48.97	35.49
	Jun	3.93	39.63	28.41	1.96	84.43	29.41		Jun	117.96	38.48	27.28	88.45	48.48	37.28
	Jul	3.93	39.99	30.17	1.96	84.79	31.17		Jul	117.96	38.94	29.75	88.45	48.94	39.75
	Aug	3.93	40.31	29.98	1.96	85.11	30.98		Aug	117.96	39.39	30.18	88.45	49.39	40.18
	Sep	3.93	41.26	29.05	1.96	86.06	30.05		Sep	117.96	39.28	29.48	88.45	49.28	39.48
	Oct	3.93	40.94	27.96	1.96	85.74	28.96		Oct	117.96	39.51	28.39	88.45	49.51	38.39
	Nov	3.93	41.55	24.48	1.96	86.35	25.48		Nov	117.96	39.19	25.59	88.45	49.19	35.59
	Dec	3.93	41.45	20.43	1.96	86.25	21.43		Dec	117.96	39.82	21.88	88.45	49.82	31.88
2015	Jan	4.09	40.93	17.51	2.05	85.73	18.51	2015	Jan	122.40	39.65	19.05	91.77	49.65	29.05
	Feb	4.09	40.85	17.46	2.05	85.65	18.46		Feb	122.40	39.28	18.30	91.77	49.28	28.30
	Mar	4.09	40.41	19.31	2.05	85.21	20.31		Mar	122.40	39.18	19.30	91.77	49.18	29.30
	Apr	4.09	40.85	23.07	2.05	85.65	24.07		Apr	122.40	39.00	21.88	91.77	49.00	31.88
	May	4.09	40.58	26.21	2.05	85.38	27.21		May	122.40	38.97	25.46	91.77	48.97	35.46
	Jun	4.09	40.08	27.97	2.05	84.88	28.97		Jun	122.40	39.62	27.87	91.77	49.62	37.87
	Jul	4.09	40.85	29.88	2.05	85.65	30.88		Jul	122.40	39.23	29.27	91.77	49.23	39.27
	Aug	4.09	40.85	30.43	2.05	85.65	31.43		Aug	122.40	39.78	30.37	91.77	49.78	40.37
	Sep	4.09	41.00	29.61	2.05	85.80	30.61		Sep	122.40	39.60	29.62	91.77	49.60	39.62
	Oct	4.09	42.00	28.14	2.05	86.80	29.14		Oct	122.40	39.74	28.68	91.77	49.74	38.68
	Nov	4.09	41.83	24.51	2.05	86.63	25.51		Nov	122.40	39.32	25.67	91.77	49.32	35.67
	Dec	4.09	40.86	20.46	2.05	85.66	21.46		Dec	122.40	39.20	22.42	91.77	49.20	32.42

UAE (JabalAir) MED		Inflow			Outflow			UAE (JabalAli) RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	4.01	39.29	18.88	2.67	54.29	28.88	2004	Jan	8.78	39.29	18.88	4.39	84.09	19.88
	Feb	4.01	39.30	17.88	2.67	54.30	27.88		Feb	8.78	39.30	17.88	4.39	84.10	18.88
	Mar	4.01	39.16	19.06	2.67	54.16	29.06		Mar	8.78	39.16	19.06	4.39	83.96	20.06
	Apr	4.01	38.94	21.99	2.67	53.94	31.99		Apr	8.78	38.94	21.99	4.39	83.74	22.99
	May	4.01	38.69	25.19	2.67	53.69	35.19		May	8.78	38.69	25.19	4.39	83.49	26.19
	Jun	4.01	38.72	27.56	2.67	53.72	37.56		Jun	8.78	38.72	27.56	4.39	83.52	28.56
	Jul	4.01	39.24	29.57	2.67	54.24	39.57		Jul	8.78	39.24	29.57	4.39	84.04	30.57
	Aug	4.01	39.07	29.91	2.67	54.07	39.91		Aug	8.78	39.07	29.91	4.39	83.87	30.91
	Sep	4.01	39.45	29.53	2.67	54.45	39.53		Sep	8.78	39.45	29.53	4.39	84.25	30.53
	Oct	4.01	39.58	28.26	2.67	54.58	38.26		Oct	8.78	39.58	28.26	4.39	84.38	29.26
	Nov	4.01	39.43	25.83	2.67	54.43	35.83		Nov	8.78	39.43	25.83	4.39	84.23	26.83
	Dec	4.01	39.90	22.11	2.67	54.90	32.11		Dec	8.78	39.90	22.11	4.39	84.70	23.11
2005	Jan	4.30	39.99	18.49	2.86	54.99	28.49	2005	Jan	9.41	39.99	18.49	4.39	84.79	19.49
	Feb	4.30	39.24	17.99	2.86	54.24	27.99		Feb	9.41	39.24	17.99	4.70	84.04	18.99
	Mar	4.30	38.95	19.12	2.86	53.95	29.12		Mar	9.41	38.95	19.12	4.70	83.75	20.12
	Apr	4.30	39.04	22.24	2.86	54.04	32.24		Apr	9.41	39.04	22.24	4.70	83.84	23.24
	May	4.30	38.36	24.67	2.86	53.36	34.67		May	9.41	38.36	24.67	4.70	83.16	25.67
	Jun	4.30	38.79	27.55	2.86	53.79	37.55		Jun	9.41	38.79	27.55	4.70	83.59	28.55
	Jul	4.30	39.40	29.35	2.86	54.40	39.35		Jul	9.41	39.40	29.35	4.70	84.20	30.35
	Aug	4.30	39.71	30.11	2.86	54.71	40.11		Aug	9.41	39.71	30.11	4.70	84.51	31.11
	Sep	4.30	39.91	29.64	2.86	54.91	39.64		Sep	9.41	39.91	29.64	4.70	84.71	30.64
	Oct	4.30	39.71	28.39	2.86	54.71	38.39		Oct	9.41	39.71	28.39	4.70	84.51	29.39
	Nov	4.30	38.98	25.62	2.86	53.98	35.62		Nov	9.41	38.98	25.62	4.70	83.78	26.62
	Dec	4.30	39.47	21.97	2.86	54.47	31.97		Dec	9.41	39.47	21.97	4.70	84.27	22.97
2006	Jan	4.58	39.92	19.02	3.05	54.92	29.02	2006	Jan	10.04	39.92	19.02	5.02	84.72	20.02
	Feb	4.58	39.20	17.96	3.05	54.20	27.96		Feb	10.04	39.20	17.96	5.02	84.00	18.96
	Mar	4.58	38.87	19.13	3.05	53.87	29.13		Mar	10.04	38.87	19.13	5.02	83.67	20.13
	Apr	4.58	38.97	21.80	3.05	53.97	31.80		Apr	10.04	38.97	21.80	5.02	83.77	22.80
	May	4.58	38.41	24.66	3.05	53.41	34.66		May	10.04	38.41	24.66	5.02	83.21	25.66
	Jun	4.58	38.85	27.80	3.05	53.85	37.80		Jun	10.04	38.85	27.80	5.02	83.65	28.80
	Jul	4.58	39.35	29.47	3.05	54.35	39.47		Jul	10.04	39.35	29.47	5.02	84.15	30.47
	Aug	4.58	39.68	30.09	3.05	54.68	40.09		Aug	10.04	39.68	30.09	5.02	84.48	31.09
	Sep	4.58	39.92	29.39	3.05	54.92	39.39		Sep	10.04	39.92	29.39	5.02	84.72	30.39
	Oct	4.58	39.58	28.33	3.05	54.58	38.33		Oct	10.04	39.58	28.33	5.02	84.38	29.33

	Nov	4.58	39.27	25.67	3.05	54.27	35.67		Nov	10.04	39.27	25.67	5.02	84.07	26.67
	Dec	4.58	39.34	22.03	3.05	54.34	32.03		Dec	10.04	39.34	22.03	5.02	84.14	23.03
2007	Jan	4.87	39.80	18.87	3.25	54.80	28.87	2007	Jan	10.66	39.80	18.87	5.33	84.60	19.87
	Feb	4.87	39.24	17.93	3.25	54.24	27.93		Feb	10.66	39.24	17.93	5.33	84.04	18.93
	Mar	4.87	39.04	19.03	3.25	54.04	29.03		Mar	10.66	39.04	19.03	5.33	83.84	20.03
	Apr	4.87	38.59	21.44	3.25	53.59	31.44		Apr	10.66	38.59	21.44	5.33	83.39	22.44
	May	4.87	38.82	25.23	3.25	53.82	35.23		May	10.66	38.82	25.23	5.33	83.62	26.23
	Jun	4.87	38.89	27.70	3.25	53.89	37.70		Jun	10.66	38.89	27.70	5.33	83.69	28.70
	Jul	4.87	39.26	29.65	3.25	54.26	39.65		Jul	10.66	39.26	29.65	5.33	84.06	30.65
	Aug	4.87	39.84	29.96	3.25	54.84	39.96		Aug	10.66	39.84	29.96	5.33	84.64	30.96
	Sep	4.87	39.11	29.16	3.25	54.11	39.16		Sep	10.66	39.11	29.16	5.33	83.91	30.16
	Oct	4.87	39.51	28.40	3.25	54.51	38.40		Oct	10.66	39.51	28.40	5.33	84.31	29.40
	Nov	4.87	39.52	25.63	3.25	54.52	35.63		Nov	10.66	39.52	25.63	5.33	84.32	26.63
	Dec	4.87	39.50	21.91	3.25	54.50	31.91		Dec	10.66	39.50	21.91	5.33	84.30	22.91
2008	Jan	5.15	39.88	18.76	3.44	54.88	28.76	2008	Jan	11.29	39.88	18.76	5.65	84.68	19.76
	Feb	5.15	39.75	17.69	3.44	54.75	27.69		Feb	11.29	39.75	17.69	5.65	84.55	18.69
	Mar	5.15	39.23	18.91	3.44	54.23	28.91		Mar	11.29	39.23	18.91	5.65	84.03	19.91
	Apr	5.15	38.94	22.37	3.44	53.94	32.37		Apr	11.29	38.94	22.37	5.65	83.74	23.37
	May	5.15	38.69	25.14	3.44	53.69	35.14		May	11.29	38.69	25.14	5.65	83.49	26.14
	Jun	5.15	38.85	27.66	3.44	53.85	37.66		Jun	11.29	38.85	27.66	5.65	83.65	28.66
	Jul	5.15	38.98	29.49	3.44	53.98	39.49		Jul	11.29	38.98	29.49	5.65	83.78	30.49
	Aug	5.15	39.75	30.34	3.44	54.75	40.34		Aug	11.29	39.75	30.34	5.65	84.55	31.34
	Sep	5.15	39.34	29.34	3.44	54.34	39.34		Sep	11.29	39.34	29.34	5.65	84.14	30.34
	Oct	5.15	39.58	28.20	3.44	54.58	38.20		Oct	11.29	39.58	28.20	5.65	84.38	29.20
	Nov	5.15	39.51	25.64	3.44	54.51	35.64		Nov	11.29	39.51	25.64	5.65	84.31	26.64
	Dec	5.15	39.20	22.56	3.44	54.20	32.56		Dec	11.29	39.20	22.56	5.65	84.00	23.56
2009	Jan	5.44	39.08	19.58	3.63	54.08	29.58	2009	Jan	11.92	39.08	19.58	5.96	83.88	20.58
	Feb	5.44	38.65	18.81	3.63	53.65	28.81		Feb	11.92	38.65	18.81	5.96	83.45	19.81
	Mar	5.44	39.01	19.35	3.63	54.01	29.35		Mar	11.92	39.01	19.35	5.96	83.81	20.35
	Apr	5.44	38.93	21.44	3.63	53.93	31.44		Apr	11.92	38.93	21.44	5.96	83.73	22.44
	May	5.44	39.18	24.98	3.63	54.18	34.98		May	11.92	39.18	24.98	5.96	83.98	25.98
	Jun	5.44	39.10	27.67	3.63	54.10	37.67		Jun	11.92	39.10	27.67	5.96	83.90	28.67
	Jul	5.44	39.15	29.61	3.63	54.15	39.61		Jul	11.92	39.15	29.61	5.96	83.95	30.61
	Aug	5.44	40.22	30.54	3.63	55.22	40.54		Aug	11.92	40.22	30.54	5.96	85.02	31.54
	Sep	5.44	39.54	29.39	3.63	54.54	39.39		Sep	11.92	39.54	29.39	5.96	84.34	30.39
	Oct	5.44	40.05	28.13	3.63	55.05	38.13		Oct	11.92	40.05	28.13	5.96	84.85	29.13
	Nov	5.44	38.79	25.53	3.63	53.79	35.53		Nov	11.92	38.79	25.53	5.96	83.59	26.53
	Dec	5.44	38.89	22.78	3.63	53.89	32.78		Dec	11.92	38.89	22.78	5.96	83.69	23.78
2010	Jan	5.73	39.44	19.29	3.82	54.44	29.29	2010	Jan	12.55	39.44	19.29	6.27	84.24	20.29
	Feb	5.73	39.10	18.42	3.82	54.10	28.42		Feb	12.55	39.10	18.42	6.27	83.90	19.42
	Mar	5.73	39.29	19.27	3.82	54.29	29.27		Mar	12.55	39.29	19.27	6.27	84.09	20.27
	Apr	5.73	38.88	22.02	3.82	53.88	32.02		Apr	12.55	38.88	22.02	6.27	83.68	23.02
	May	5.73	38.64	25.25	3.82	53.64	35.25		May	12.55	38.64	25.25	6.27	83.44	26.25
	Jun	5.73	38.80	27.64	3.82	53.80	37.64		Jun	12.55	38.80	27.64	6.27	83.60	28.64
	Jul	5.73	39.10	29.38	3.82	54.10	39.38		Jul	12.55	39.10	29.38	6.27	83.90	30.38
	Aug	5.73	39.50	30.12	3.82	54.50	40.12		Aug	12.55	39.50	30.12	6.27	84.30	31.12
	Sep	5.73	39.23	29.20	3.82	54.23	39.20		Sep	12.55	39.23	29.20	6.27	84.03	30.20
	Oct	5.73	39.37	28.20	3.82	54.37	38.20		Oct	12.55	39.37	28.20	6.27	84.17	29.20
	Nov	5.73	39.65	25.75	3.82	54.65	35.75		Nov	12.55	39.65	25.75	6.27	84.45	26.75
	Dec	5.73	39.10	23.05	3.82	54.10	33.05		Dec	12.55	39.10	23.05	6.27	83.90	24.05
2011	Jan	6.01	39.73	19.34	4.01	54.73	29.34	2011	Jan	13.17	39.73	19.34	6.59	84.53	20.34
	Feb	6.01	39.31	18.45	4.01	54.31	28.45		Feb	13.17	39.31	18.45	6.59	84.11	19.45
	Mar	6.01	39.08	18.94	4.01	54.08	28.94		Mar	13.17	39.08	18.94	6.59	83.88	19.94
	Apr	6.01	39.11	21.80	4.01	54.11	31.80		Apr	13.17	39.11	21.80	6.59	83.91	22.80
	May	6.01	39.16	25.32	4.01	54.16	35.32		May	13.17	39.16	25.32	6.59	83.96	26.32
	Jun	6.01	39.05	27.85	4.01	54.05	37.85		Jun	13.17	39.05	27.85	6.59	83.85	28.85
	Jul	6.01	38.92	29.18	4.01	53.92	39.18		Jul	13.17	38.92	29.18	6.59	83.72	30.18
	Aug	6.01	39.50	30.15	4.01	54.50	40.15		Aug	13.17	39.50	30.15	6.59	84.30	31.15
	Sep	6.01	39.16	29.47	4.01	54.16	39.47		Sep	13.17	39.16	29.47	6.59	83.96	30.47
	Oct	6.01	39.47	28.42	4.01	54.47	38.42		Oct	13.17	39.47	28.42	6.59	84.27	29.42
	Nov	6.01	39.52	25.80	4.01	54.52	35.80		Nov	13.17	39.52	25.80	6.59	84.32	26.80
	Dec	6.01	39.69	22.56	4.01	54.69	32.56		Dec	13.17	39.69	22.56	6.59	84.49	23.56
2012	Jan	6.30	39.69	18.86	4.20	54.69	28.86	2012	Jan	13.80	39.69	18.86	6.90	84.49	19.86
	Feb	6.30	39.22	17.85	4.20	54.22	27.85		Feb	13.80	39.22	17.85	6.90	84.02	18.85

	Mar	6.30	39.34	18.91	4.20	54.34	28.91		Mar	13.80	39.34	18.91	6.90	84.14	19.91
	Apr	6.30	39.30	21.59	4.20	54.30	31.59		Apr	13.80	39.30	21.59	6.90	84.10	22.59
	May	6.30	39.00	25.58	4.20	54.00	35.58		May	13.80	39.00	25.58	6.90	83.80	26.58
	Jun	6.30	39.02	27.83	4.20	54.02	37.83		Jun	13.80	39.02	27.83	6.90	83.82	28.83
	Jul	6.30	39.25	29.84	4.20	54.25	39.84		Jul	13.80	39.25	29.84	6.90	84.05	30.84
	Aug	6.30	39.26	30.17	4.20	54.26	40.17		Aug	13.80	39.26	30.17	6.90	84.06	31.17
	Sep	6.30	39.54	29.70	4.20	54.54	39.70		Sep	13.80	39.54	29.70	6.90	84.34	30.70
	Oct	6.30	39.53	28.47	4.20	54.53	38.47		Oct	13.80	39.53	28.47	6.90	84.33	29.47
	Nov	6.30	39.16	26.07	4.20	54.16	36.07		Nov	13.80	39.16	26.07	6.90	83.96	27.07
	Dec	6.30	39.51	22.76	4.20	54.51	32.76		Dec	13.80	39.51	22.76	6.90	84.31	23.76
2013	Jan	6.59	39.14	19.65	4.39	54.14	29.65	2013	Jan	14.43	39.14	19.65	7.21	83.94	20.65
	Feb	6.59	39.45	18.07	4.39	54.45	28.07		Feb	14.43	39.45	18.07	7.21	84.25	19.07
	Mar	6.59	38.88	19.41	4.39	53.88	29.41		Mar	14.43	38.88	19.41	7.21	83.68	20.41
	Apr	6.59	38.86	22.40	4.39	53.86	32.40		Apr	14.43	38.86	22.40	7.21	83.66	23.40
	May	6.59	38.58	24.89	4.39	53.58	34.89		May	14.43	38.58	24.89	7.21	83.38	25.89
	Jun	6.59	38.89	27.81	4.39	53.89	37.81		Jun	14.43	38.89	27.81	7.21	83.69	28.81
	Jul	6.59	39.35	29.75	4.39	54.35	39.75		Jul	14.43	39.35	29.75	7.21	84.15	30.75
	Aug	6.59	40.05	29.76	4.39	55.05	39.76		Aug	14.43	40.05	29.76	7.21	84.85	30.76
	Sep	6.59	39.79	29.37	4.39	54.79	39.37		Sep	14.43	39.79	29.37	7.21	84.59	30.37
	Oct	6.59	39.69	28.15	4.39	54.69	38.15		Oct	14.43	39.69	28.15	7.21	84.49	29.15
	Nov	6.59	39.21	25.68	4.39	54.21	35.68		Nov	14.43	39.21	25.68	7.21	84.01	26.68
	Dec	6.59	39.01	22.82	4.39	54.01	32.82		Dec	14.43	39.01	22.82	7.21	83.81	23.82
2014	Jan	6.87	39.66	18.80	4.58	54.66	28.80	2014	Jan	15.05	39.66	18.80	7.53	84.46	19.80
	Feb	6.87	39.37	18.36	4.58	54.37	28.36		Feb	15.05	39.37	18.36	7.53	84.17	19.36
	Mar	6.87	39.18	19.30	4.58	54.18	29.30		Mar	15.05	39.18	19.30	7.53	83.98	20.30
	Apr	6.87	38.95	22.05	4.58	53.95	32.05		Apr	15.05	38.95	22.05	7.53	83.75	23.05
	May	6.87	38.97	25.49	4.58	53.97	35.49		May	15.05	38.97	25.49	7.53	83.77	26.49
	Jun	6.87	38.48	27.28	4.58	53.48	37.28		Jun	15.05	38.48	27.28	7.53	83.28	28.28
	Jul	6.87	38.94	29.75	4.58	53.94	39.75		Jul	15.05	38.94	29.75	7.53	83.74	30.75
	Aug	6.87	39.39	30.18	4.58	54.39	40.18		Aug	15.05	39.39	30.18	7.53	84.19	31.18
	Sep	6.87	39.28	29.48	4.58	54.28	39.48		Sep	15.05	39.28	29.48	7.53	84.08	30.48
	Oct	6.87	39.51	28.39	4.58	54.51	38.39		Oct	15.05	39.51	28.39	7.53	84.31	29.39
	Nov	6.87	39.19	25.59	4.58	54.19	35.59		Nov	15.05	39.19	25.59	7.53	83.99	26.59
	Dec	6.87	39.82	21.88	4.58	54.82	31.88		Dec	15.05	39.82	21.88	7.53	84.62	22.88
2015	Jan	7.16	39.65	19.05	4.77	54.65	29.05	2015	Jan	15.68	39.65	19.05	7.84	84.45	20.05
	Feb	7.16	39.28	18.30	4.77	54.28	28.30		Feb	15.68	39.28	18.30	7.84	84.08	19.30
	Mar	7.16	39.18	19.30	4.77	54.18	29.30		Mar	15.68	39.18	19.30	7.84	83.98	20.30
	Apr	7.16	39.00	21.88	4.77	54.00	31.88		Apr	15.68	39.00	21.88	7.84	83.80	22.88
	May	7.16	38.97	25.46	4.77	53.97	35.46		May	15.68	38.97	25.46	7.84	83.77	26.46
	Jun	7.16	39.62	27.87	4.77	54.62	37.87		Jun	15.68	39.62	27.87	7.84	84.42	28.87
	Jul	7.16	39.23	29.27	4.77	54.23	39.27		Jul	15.68	39.23	29.27	7.84	84.03	30.27
	Aug	7.16	39.78	30.37	4.77	54.78	40.37		Aug	15.68	39.78	30.37	7.84	84.58	31.37
	Sep	7.16	39.60	29.62	4.77	54.60	39.62		Sep	15.68	39.60	29.62	7.84	84.40	30.62
	Oct	7.16	39.74	28.68	4.77	54.74	38.68		Oct	15.68	39.74	28.68	7.84	84.54	29.68
	Nov	7.16	39.32	25.67	4.77	54.32	35.67		Nov	15.68	39.32	25.67	7.84	84.12	26.67
	Dec	7.16	39.20	22.42	4.77	54.20	32.42		Dec	15.68	39.20	22.42	7.84	84.00	23.42

UAE (Shuwaihat) MSF		Inflow			Outflow				UAE (Shuwaihat) MED		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)				F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	29.85	42.44	17.84	22.40	52.44	27.84	2004	Jan	0.70	42.44	17.84	0.45	57.44	27.84	
	Feb	29.85	42.11	17.21	22.40	52.11	27.21		Feb	0.70	42.11	17.21	0.45	57.11	27.21	
	Mar	29.85	42.01	19.04	22.40	52.01	29.04		Mar	0.70	42.01	19.04	0.45	57.01	29.04	
	Apr	29.85	41.02	22.76	22.40	51.02	32.76		Apr	0.70	41.02	22.76	0.45	56.02	32.76	
	May	29.85	40.61	25.42	22.40	50.61	35.42		May	0.70	40.61	25.42	0.45	55.61	35.42	
	Jun	29.85	40.54	27.76	22.40	50.54	37.76		Jun	0.70	40.54	27.76	0.45	55.54	37.76	
	Jul	29.85	40.79	29.82	22.40	50.79	39.82		Jul	0.70	40.79	29.82	0.45	55.79	39.82	
	Aug	29.85	40.85	29.96	22.40	50.85	39.96		Aug	0.70	40.85	29.96	0.45	55.85	39.96	
	Sep	29.85	41.26	29.45	22.40	51.26	39.45		Sep	0.70	41.26	29.45	0.45	56.26	39.45	
	Oct	29.85	41.41	27.93	22.40	51.41	37.93		Oct	0.70	41.41	27.93	0.45	56.41	37.93	
	Nov	29.85	41.72	25.45	22.40	51.72	35.45		Nov	0.70	41.72	25.45	0.45	56.72	35.45	
	Dec	29.85	41.91	21.21	22.40	51.91	31.21		Dec	0.70	41.91	21.21	0.45	56.91	31.21	

2005	Jan	31.98	42.22	17.04	24.00	52.22	27.04	2005	Jan	0.75	42.22	17.04	0.48	57.22	27.04
	Feb	31.98	41.68	17.07	24.00	51.68	27.07		Feb	0.75	41.68	17.07	0.48	56.68	27.07
	Mar	31.98	41.39	18.73	24.00	51.39	28.73		Mar	0.75	41.39	18.73	0.48	56.39	28.73
	Apr	31.98	41.33	22.02	24.00	51.33	32.02		Apr	0.75	41.33	22.02	0.48	56.33	32.02
	May	31.98	41.33	25.42	24.00	51.33	35.42		May	0.75	41.33	25.42	0.48	56.33	35.42
	Jun	31.98	41.40	27.88	24.00	51.40	37.88		Jun	0.75	41.40	27.88	0.48	56.40	37.88
	Jul	31.98	41.62	29.21	24.00	51.62	39.21		Jul	0.75	41.62	29.21	0.48	56.62	39.21
	Aug	31.98	41.65	30.03	24.00	51.65	40.03		Aug	0.75	41.65	30.03	0.48	56.65	40.03
	Sep	31.98	41.98	29.30	24.00	51.98	39.30		Sep	0.75	41.98	29.30	0.48	56.98	39.30
	Oct	31.98	42.28	27.79	24.00	52.28	37.79		Oct	0.75	42.28	27.79	0.48	57.28	37.79
	Nov	31.98	42.33	24.76	24.00	52.33	34.76		Nov	0.75	42.33	24.76	0.48	57.33	34.76
	Dec	31.98	42.42	20.60	24.00	52.42	30.60		Dec	0.75	42.42	20.60	0.48	57.42	30.60
2006	Jan	34.11	42.13	17.86	25.60	52.13	27.86	2006	Jan	0.80	42.13	17.86	0.51	57.13	27.86
	Feb	34.11	41.97	17.09	25.60	51.97	27.09		Feb	0.80	41.97	17.09	0.51	56.97	27.09
	Mar	34.11	41.84	19.09	25.60	51.84	29.09		Mar	0.80	41.84	19.09	0.51	56.84	29.09
	Apr	34.11	41.49	22.05	25.60	51.49	32.05		Apr	0.80	41.49	22.05	0.51	56.49	32.05
	May	34.11	41.32	25.67	25.60	51.32	35.67		May	0.80	41.32	25.67	0.51	56.32	35.67
	Jun	34.11	41.36	27.91	25.60	51.36	37.91		Jun	0.80	41.36	27.91	0.51	56.36	37.91
	Jul	34.11	41.61	29.55	25.60	51.61	39.55		Jul	0.80	41.61	29.55	0.51	56.61	39.55
	Aug	34.11	41.79	29.98	25.60	51.79	39.98		Aug	0.80	41.79	29.98	0.51	56.79	39.98
	Sep	34.11	41.90	29.32	25.60	51.90	39.32		Sep	0.80	41.90	29.32	0.51	56.90	39.32
	Oct	34.11	42.13	27.80	25.60	52.13	37.80		Oct	0.80	42.13	27.80	0.51	57.13	37.80
	Nov	34.11	42.34	25.09	25.60	52.34	35.09		Nov	0.80	42.34	25.09	0.51	57.34	35.09
	Dec	34.11	42.39	21.25	25.60	52.39	31.25		Dec	0.80	42.39	21.25	0.51	57.39	31.25
2007	Jan	36.24	42.40	17.26	27.20	52.40	27.26	2007	Jan	0.85	42.40	17.26	0.54	57.40	27.26
	Feb	36.24	41.43	16.86	27.20	51.43	26.86		Feb	0.85	41.43	16.86	0.54	56.43	26.86
	Mar	36.24	40.91	18.91	27.20	50.91	28.91		Mar	0.85	40.91	18.91	0.54	55.91	28.91
	Apr	36.24	40.73	21.95	27.20	50.73	31.95		Apr	0.85	40.73	21.95	0.54	55.73	31.95
	May	36.24	40.75	25.64	27.20	50.75	35.64		May	0.85	40.75	25.64	0.54	55.75	35.64
	Jun	36.24	40.80	27.97	27.20	50.80	37.97		Jun	0.85	40.80	27.97	0.54	55.80	37.97
	Jul	36.24	41.08	29.73	27.20	51.08	39.73		Jul	0.85	41.08	29.73	0.54	56.08	39.73
	Aug	36.24	41.36	29.75	27.20	51.36	39.75		Aug	0.85	41.36	29.75	0.54	56.36	39.75
	Sep	36.24	41.70	29.38	27.20	51.70	39.38		Sep	0.85	41.70	29.38	0.54	56.70	39.38
	Oct	36.24	42.10	28.09	27.20	52.10	38.09		Oct	0.85	42.10	28.09	0.54	57.10	38.09
	Nov	36.24	42.24	25.01	27.20	52.24	35.01		Nov	0.85	42.24	25.01	0.54	57.24	35.01
	Dec	36.24	42.48	20.98	27.20	52.48	30.98		Dec	0.85	42.48	20.98	0.54	57.48	30.98
2008	Jan	38.37	42.22	17.91	28.80	52.22	27.91	2008	Jan	0.90	42.22	17.91	0.57	57.22	27.91
	Feb	38.37	41.67	17.12	28.80	51.67	27.12		Feb	0.90	41.67	17.12	0.57	56.67	27.12
	Mar	38.37	41.05	18.81	28.80	51.05	28.81		Mar	0.90	41.05	18.81	0.57	56.05	28.81
	Apr	38.37	40.50	22.66	28.80	50.50	32.66		Apr	0.90	40.50	22.66	0.57	55.50	32.66
	May	38.37	40.47	26.03	28.80	50.47	36.03		May	0.90	40.47	26.03	0.57	55.47	36.03
	Jun	38.37	40.48	28.06	28.80	50.48	38.06		Jun	0.90	40.48	28.06	0.57	55.48	38.06
	Jul	38.37	40.75	29.59	28.80	50.75	39.59		Jul	0.90	40.75	29.59	0.57	55.75	39.59
	Aug	38.37	41.32	29.86	28.80	51.32	39.86		Aug	0.90	41.32	29.86	0.57	56.32	39.86
	Sep	38.37	41.46	29.24	28.80	51.46	39.24		Sep	0.90	41.46	29.24	0.57	56.46	39.24
	Oct	38.37	41.50	27.63	28.80	51.50	37.63		Oct	0.90	41.50	27.63	0.57	56.50	37.63
	Nov	38.37	41.83	24.84	28.80	51.83	34.84		Nov	0.90	41.83	24.84	0.57	56.83	34.84
	Dec	38.37	42.13	20.62	28.80	52.13	30.62		Dec	0.90	42.13	20.62	0.57	57.13	30.62
2009	Jan	40.50	41.65	18.17	30.40	51.65	28.17	2009	Jan	0.95	41.65	18.17	0.60	56.65	28.17
	Feb	40.50	41.11	17.55	30.40	51.11	27.55		Feb	0.95	41.11	17.55	0.60	56.11	27.55
	Mar	40.50	40.71	19.16	30.40	50.71	29.16		Mar	0.95	40.71	19.16	0.60	55.71	29.16
	Apr	40.50	40.55	21.96	30.40	50.55	31.96		Apr	0.95	40.55	21.96	0.60	55.55	31.96
	May	40.50	40.57	25.66	30.40	50.57	35.66		May	0.95	40.57	25.66	0.60	55.57	35.66
	Jun	40.50	40.66	27.87	30.40	50.66	37.87		Jun	0.95	40.66	27.87	0.60	55.66	37.87
	Jul	40.50	40.85	29.65	30.40	50.85	39.65		Jul	0.95	40.85	29.65	0.60	55.85	39.65
	Aug	40.50	41.36	29.45	30.40	51.36	39.45		Aug	0.95	41.36	29.45	0.60	56.36	39.45
	Sep	40.50	41.56	29.01	30.40	51.56	39.01		Sep	0.95	41.56	29.01	0.60	56.56	39.01
	Oct	40.50	41.57	27.34	30.40	51.57	37.34		Oct	0.95	41.57	27.34	0.60	56.57	37.34
	Nov	40.50	41.56	24.97	30.40	51.56	34.97		Nov	0.95	41.56	24.97	0.60	56.56	34.97
	Dec	40.50	41.55	21.29	30.40	51.55	31.09		Dec	0.95	41.55	21.29	0.60	56.55	31.09
2010	Jan	42.64	41.78	18.12	32.00	51.78	28.12	2010	Jan	1.00	41.78	18.12	0.64	56.78	28.12
	Feb	42.64	41.94	17.46	32.00	51.94	27.46		Feb	1.00	41.94	17.46	0.64	56.94	27.46
	Mar	42.64	41.45	19.27	32.00	51.45	29.27		Mar	1.00	41.45	19.27	0.64	56.45	29.27
	Apr	42.64	41.28	22.24	32.00	51.28	32.24		Apr	1.00	41.28	22.24	0.64	56.28	32.24

	May	42.64	41.31	25.60	32.00	51.31	35.60		May	1.00	41.31	25.60	0.64	56.31	35.60
	Jun	42.64	41.34	28.10	32.00	51.34	38.10		Jun	1.00	41.34	28.10	0.64	56.34	38.10
	Jul	42.64	41.41	29.40	32.00	51.41	39.40		Jul	1.00	41.41	29.40	0.64	56.41	39.40
	Aug	42.64	41.68	29.84	32.00	51.68	39.84		Aug	1.00	41.68	29.84	0.64	56.68	39.84
	Sep	42.64	41.80	29.12	32.00	51.80	39.12		Sep	1.00	41.80	29.12	0.64	56.80	39.12
	Oct	42.64	42.05	27.97	32.00	52.05	37.97		Oct	1.00	42.05	27.97	0.64	57.05	37.97
	Nov	42.64	42.27	25.17	32.00	52.27	35.17		Nov	1.00	42.27	25.17	0.64	57.27	35.17
2011	Dec	42.64	42.44	21.06	32.00	52.44	31.06	2011	Dec	1.00	42.44	21.06	0.64	57.44	31.06
	Jan	44.77	41.80	17.70	33.60	51.80	27.70		Jan	1.05	41.80	17.70	0.67	56.80	27.70
	Feb	44.77	41.09	17.11	33.60	51.09	27.11		Feb	1.05	41.09	17.11	0.67	56.09	27.11
	Mar	44.77	40.66	18.99	33.60	50.66	28.99		Mar	1.05	40.66	18.99	0.67	55.66	28.99
	Apr	44.77	40.67	22.09	33.60	50.67	32.09		Apr	1.05	40.67	22.09	0.67	55.67	32.09
	May	44.77	40.56	25.51	33.60	50.56	35.51		May	1.05	40.56	25.51	0.67	55.56	35.51
	Jun	44.77	40.56	27.64	33.60	50.56	37.64		Jun	1.05	40.56	27.64	0.67	55.56	37.64
	Jul	44.77	40.78	29.47	33.60	50.78	39.47		Jul	1.05	40.78	29.47	0.67	55.78	39.47
	Aug	44.77	41.13	29.75	33.60	51.13	39.75		Aug	1.05	41.13	29.75	0.67	56.13	39.75
	Sep	44.77	41.51	29.33	33.60	51.51	39.33		Sep	1.05	41.51	29.33	0.67	56.51	39.33
	Oct	44.77	41.58	27.90	33.60	51.58	37.90		Oct	1.05	41.58	27.90	0.67	56.58	37.90
	Nov	44.77	41.71	24.44	33.60	51.71	34.44		Nov	1.05	41.71	24.44	0.67	56.71	34.44
2012	Dec	44.77	41.84	20.51	33.60	51.84	30.51	2012	Dec	1.05	41.84	20.51	0.67	56.84	30.51
	Jan	46.90	41.40	17.36	35.20	51.40	27.36		Jan	1.10	41.40	17.36	0.70	56.40	27.36
	Feb	46.90	40.83	17.17	35.20	50.83	27.17		Feb	1.10	40.83	17.17	0.70	55.83	27.17
	Mar	46.90	40.54	18.83	35.20	50.54	28.83		Mar	1.10	40.54	18.83	0.70	55.54	28.83
	Apr	46.90	40.15	21.91	35.20	50.15	31.91		Apr	1.10	40.15	21.91	0.70	55.15	31.91
	May	46.90	40.14	25.17	35.20	50.14	35.17		May	1.10	40.14	25.17	0.70	55.14	35.17
	Jun	46.90	40.26	27.47	35.20	50.26	37.47		Jun	1.10	40.26	27.47	0.70	55.26	37.47
	Jul	46.90	40.45	29.48	35.20	50.45	39.48		Jul	1.10	40.45	29.48	0.70	55.45	39.48
	Aug	46.90	40.77	29.81	35.20	50.77	39.81		Aug	1.10	40.77	29.81	0.70	55.77	39.81
	Sep	46.90	41.19	29.11	35.20	51.19	39.11		Sep	1.10	41.19	29.11	0.70	56.19	39.11
	Oct	46.90	41.56	27.67	35.20	51.56	37.67		Oct	1.10	41.56	27.67	0.70	56.56	37.67
	Nov	46.90	41.55	25.02	35.20	51.55	35.02		Nov	1.10	41.55	25.02	0.70	56.55	35.02
2013	Dec	46.90	41.84	20.87	35.20	51.84	30.87	2013	Dec	1.10	41.84	20.87	0.70	56.84	30.87
	Jan	49.03	41.99	17.96	36.80	51.99	27.96		Jan	1.15	41.99	17.96	0.73	56.99	27.96
	Feb	49.03	41.36	17.20	36.80	51.36	27.20		Feb	1.15	41.36	17.20	0.73	56.36	27.20
	Mar	49.03	41.32	19.10	36.80	51.32	29.10		Mar	1.15	41.32	19.10	0.73	56.32	29.10
	Apr	49.03	40.87	22.59	36.80	50.87	32.59		Apr	1.15	40.87	22.59	0.73	55.87	32.59
	May	49.03	40.84	25.41	36.80	50.84	35.41		May	1.15	40.84	25.41	0.73	55.84	35.41
	Jun	49.03	40.95	27.67	36.80	50.95	37.67		Jun	1.15	40.95	27.67	0.73	55.95	37.67
	Jul	49.03	41.24	29.86	36.80	51.24	39.86		Jul	1.15	41.24	29.86	0.73	56.24	39.86
	Aug	49.03	41.25	29.58	36.80	51.25	39.58		Aug	1.15	41.25	29.58	0.73	56.25	39.58
	Sep	49.03	41.19	28.87	36.80	51.19	38.87		Sep	1.15	41.19	28.87	0.73	56.19	38.87
	Oct	49.03	41.35	27.45	36.80	51.35	37.45		Oct	1.15	41.35	27.45	0.73	56.35	37.45
	Nov	49.03	41.54	24.66	36.80	51.54	34.66		Nov	1.15	41.54	24.66	0.73	56.54	34.66
2014	Dec	49.03	41.83	21.05	36.80	51.83	31.05	2014	Dec	1.15	41.83	21.05	0.73	56.83	31.05
	Jan	51.16	41.79	17.64	38.40	51.79	27.64		Jan	1.20	41.79	17.64	0.76	56.79	27.64
	Feb	51.16	41.38	17.36	38.40	51.38	27.36		Feb	1.20	41.38	17.36	0.76	56.38	27.36
	Mar	51.16	40.97	19.10	38.40	50.97	29.10		Mar	1.20	40.97	19.10	0.76	55.97	29.10
	Apr	51.16	40.85	22.29	38.40	50.85	32.29		Apr	1.20	40.85	22.29	0.76	55.85	32.29
	May	51.16	40.88	25.31	38.40	50.88	35.31		May	1.20	40.88	25.31	0.76	55.88	35.31
	Jun	51.16	40.96	27.79	38.40	50.96	37.79		Jun	1.20	40.96	27.79	0.76	55.96	37.79
	Jul	51.16	41.24	29.64	38.40	51.24	39.64		Jul	1.20	41.24	29.64	0.76	56.24	39.64
	Aug	51.16	41.67	29.80	38.40	51.67	39.80		Aug	1.20	41.67	29.80	0.76	56.67	39.80
	Sep	51.16	42.02	29.09	38.40	52.02	39.09		Sep	1.20	42.02	29.09	0.76	57.02	39.09
	Oct	51.16	42.28	27.90	38.40	52.28	37.90		Oct	1.20	42.28	27.90	0.76	57.28	37.90
	Nov	51.16	42.23	24.64	38.40	52.23	34.64		Nov	1.20	42.23	24.64	0.76	57.23	34.64
2015	Dec	51.16	42.36	20.55	38.40	52.36	30.55	2015	Dec	1.20	42.36	20.55	0.76	57.36	30.55
	Jan	53.30	41.98	17.54	40.00	51.98	27.54		Jan	1.25	41.98	17.54	0.80	56.98	27.54
	Feb	53.30	41.11	17.34	40.00	51.11	27.34		Feb	1.25	41.11	17.34	0.80	56.11	27.34
	Mar	53.30	40.97	19.10	40.00	50.97	29.10		Mar	1.25	40.97	19.10	0.80	55.97	29.10
	Apr	53.30	41.02	22.16	40.00	51.02	32.16		Apr	1.25	41.02	22.16	0.80	56.02	32.16
	May	53.30	41.17	25.78	40.00	51.17	35.78		May	1.25	41.17	25.78	0.80	56.17	35.78
	Jun	53.30	41.21	27.95	40.00	51.21	37.95		Jun	1.25	41.21	27.95	0.80	56.21	37.95
	Jul	53.30	41.19	29.68	40.00	51.19	39.68		Jul	1.25	41.19	29.68	0.80	56.19	39.68
	Aug	53.30	41.29	29.96	40.00	51.29	39.96		Aug	1.25	41.29	29.96	0.80	56.29	39.96

	Sep	53.30	41.48	29.51	40.00	51.48	39.51		Sep	1.25	41.48	29.51	0.80	56.48	39.51
	Oct	53.30	41.65	28.07	40.00	51.65	38.07		Oct	1.25	41.65	28.07	0.80	56.65	38.07
	Nov	53.30	41.86	24.73	40.00	51.86	34.73		Nov	1.25	41.86	24.73	0.80	56.86	34.73
	Dec	53.30	42.09	20.63	40.00	52.09	30.63		Dec	1.25	42.09	20.63	0.80	57.09	30.63

UAE (Shuwaihat) RO		Inflow			Outflow			UAE (Quidfa) RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	0.64	42.44	17.84	0.32	87.24	18.84	2004	Jan	7.00	36.90	21.02	3.50	81.70	22.02
	Feb	0.64	42.11	17.21	0.32	86.91	18.21		Feb	7.00	36.73	20.65	3.50	81.53	21.65
	Mar	0.64	42.01	19.04	0.32	86.81	20.04		Mar	7.00	36.76	21.19	3.50	81.56	22.19
	Apr	0.64	41.02	22.76	0.32	85.82	23.76		Apr	7.00	36.93	22.52	3.50	81.73	23.52
	May	0.64	40.61	25.42	0.32	85.41	26.42		May	7.00	37.23	23.62	3.50	82.03	24.62
	Jun	0.64	40.54	27.76	0.32	85.34	28.76		Jun	7.00	37.17	24.99	3.50	81.97	25.99
	Jul	0.64	40.79	29.82	0.32	85.59	30.82		Jul	7.00	37.21	25.60	3.50	82.01	26.60
	Aug	0.64	40.85	29.96	0.32	85.65	30.96		Aug	7.00	37.08	26.57	3.50	81.88	27.57
	Sep	0.64	41.26	29.45	0.32	86.06	30.45		Sep	7.00	37.26	25.90	3.50	82.06	26.90
	Oct	0.64	41.41	27.93	0.32	86.21	28.93		Oct	7.00	37.19	25.52	3.50	81.99	26.52
	Nov	0.64	41.72	25.45	0.32	86.52	26.45		Nov	7.00	37.28	24.01	3.50	82.08	25.01
	Dec	0.64	41.91	21.21	0.32	86.71	22.21		Dec	7.00	37.05	22.28	3.50	81.85	23.28
2005	Jan	0.68	42.22	17.04	0.38	87.02	18.04	2005	Jan	7.50	36.92	20.79	3.75	81.72	21.79
	Feb	0.68	41.68	17.07	0.38	86.48	18.07		Feb	7.50	37.07	20.27	3.75	81.87	21.27
	Mar	0.68	41.39	18.73	0.38	86.19	19.73		Mar	7.50	36.72	20.76	3.75	81.52	21.76
	Apr	0.68	41.33	22.02	0.38	86.13	23.02		Apr	7.50	36.87	22.19	3.75	81.67	23.19
	May	0.68	41.33	25.42	0.38	86.13	26.42		May	7.50	36.98	23.32	3.75	81.78	24.32
	Jun	0.68	41.40	27.88	0.38	86.20	28.88		Jun	7.50	36.97	25.14	3.75	81.77	26.14
	Jul	0.68	41.62	29.21	0.38	86.42	30.21		Jul	7.50	37.20	26.81	3.75	82.00	27.81
	Aug	0.68	41.65	30.03	0.38	86.45	31.03		Aug	7.50	37.44	27.75	3.75	82.24	28.75
	Sep	0.68	41.98	29.30	0.38	86.78	30.30		Sep	7.50	37.38	26.30	3.75	82.18	27.30
	Oct	0.68	42.28	27.79	0.38	87.08	28.79		Oct	7.50	37.24	26.06	3.75	82.04	27.06
	Nov	0.68	42.33	24.76	0.38	87.13	25.76		Nov	7.50	37.20	24.59	3.75	82.00	25.59
	Dec	0.68	42.42	20.60	0.38	87.22	21.60		Dec	7.50	37.15	22.68	3.75	81.95	23.68
2006	Jan	0.73	42.13	17.86	0.36	86.93	18.86	2006	Jan	8.00	36.99	21.05	4.00	81.79	22.05
	Feb	0.73	41.97	17.09	0.36	86.77	18.09		Feb	8.00	36.72	20.43	4.00	81.52	21.43
	Mar	0.73	41.84	19.09	0.36	86.64	20.09		Mar	8.00	36.94	20.61	4.00	81.74	21.61
	Apr	0.73	41.49	22.05	0.36	86.29	23.05		Apr	8.00	36.88	22.57	4.00	81.68	23.57
	May	0.73	41.32	25.67	0.36	86.12	26.67		May	8.00	36.85	23.21	4.00	81.65	24.21
	Jun	0.73	41.36	27.91	0.36	86.16	28.91		Jun	8.00	36.89	25.96	4.00	81.69	26.96
	Jul	0.73	41.61	29.55	0.36	86.41	30.55		Jul	8.00	37.13	26.48	4.00	81.93	27.48
	Aug	0.73	41.79	29.98	0.36	86.59	30.98		Aug	8.00	37.53	26.66	4.00	82.33	27.66
	Sep	0.73	41.90	29.32	0.36	86.70	30.32		Sep	8.00	37.36	26.80	4.00	82.16	27.80
	Oct	0.73	42.13	27.80	0.36	86.93	28.80		Oct	8.00	37.31	26.32	4.00	82.11	27.31
	Nov	0.73	42.34	25.09	0.36	87.14	26.09		Nov	8.00	37.35	24.74	4.00	82.15	25.74
	Dec	0.73	42.39	21.25	0.36	87.19	22.25		Dec	8.00	37.05	22.50	4.00	81.85	23.50
2007	Jan	0.77	42.40	17.26	0.39	87.20	18.26	2007	Jan	8.50	37.11	21.05	4.25	81.91	22.05
	Feb	0.77	41.43	16.86	0.39	86.23	17.86		Feb	8.50	37.09	20.17	4.25	81.89	21.17
	Mar	0.77	40.91	18.91	0.39	85.71	19.91		Mar	8.50	36.71	20.57	4.25	81.51	21.57
	Apr	0.77	40.73	21.95	0.39	85.53	22.95		Apr	8.50	36.97	22.06	4.25	81.77	23.06
	May	0.77	40.75	25.64	0.39	85.55	26.64		May	8.50	36.90	23.29	4.25	81.70	24.29
	Jun	0.77	40.80	27.97	0.39	85.60	28.97		Jun	8.50	37.05	24.63	4.25	81.85	25.63
	Jul	0.77	41.08	29.73	0.39	85.88	30.73		Jul	8.50	37.14	26.77	4.25	81.94	27.77
	Aug	0.77	41.36	29.75	0.39	86.16	30.75		Aug	8.50	37.42	26.50	4.25	82.22	27.50
	Sep	0.77	41.70	29.38	0.39	86.50	30.38		Sep	8.50	37.30	26.70	4.25	82.10	27.70
	Oct	0.77	42.10	28.09	0.39	86.90	29.09		Oct	8.50	37.05	26.07	4.25	81.85	27.07
	Nov	0.77	42.24	25.01	0.39	87.04	26.01		Nov	8.50	37.07	24.45	4.25	81.87	25.45
	Dec	0.77	42.48	20.98	0.39	87.28	21.98		Dec	8.50	37.17	22.59	4.25	81.97	23.59
2008	Jan	0.82	42.22	17.91	0.41	87.02	18.91	2008	Jan	9.00	37.15	21.29	4.50	81.95	22.29
	Feb	0.82	41.67	17.12	0.41	86.47	18.12		Feb	9.00	36.77	20.61	4.50	81.57	21.61
	Mar	0.82	41.05	18.81	0.41	85.85	19.81		Mar	9.00	36.95	20.40	4.50	81.75	21.40
	Apr	0.82	40.50	22.66	0.41	85.30	23.66		Apr	9.00	36.75	22.61	4.50	81.55	23.61
	May	0.82	40.47	26.03	0.41	85.27	27.03		May	9.00	36.81	24.41	4.50	81.61	25.41
	Jun	0.82	40.48	28.06	0.41	85.28	29.06		Jun	9.00	36.91	25.12	4.50	81.71	26.12

	Jul	0.82	40.75	29.59	0.41	85.55	30.59		Jul	9.00	37.07	26.11	4.50	81.87	27.11
	Aug	0.82	41.32	29.86	0.41	86.12	30.86		Aug	9.00	37.35	27.31	4.50	82.15	28.31
	Sep	0.82	41.46	29.24	0.41	86.26	30.24		Sep	9.00	37.39	26.27	4.50	82.19	27.27
	Oct	0.82	41.50	27.63	0.41	86.30	28.63		Oct	9.00	37.26	26.07	4.50	82.06	27.07
	Nov	0.82	41.83	24.84	0.41	86.63	26.84		Nov	9.00	37.16	24.21	4.50	81.96	25.21
2009	Dec	0.82	42.13	20.62	0.41	86.93	21.62	2009	Dec	9.00	37.12	22.69	4.50	81.92	23.69
	Jan	0.86	41.65	18.17	0.43	86.45	19.17		Jan	9.50	37.18	21.22	4.75	81.98	22.22
	Feb	0.86	41.11	17.55	0.43	85.91	18.55		Feb	9.50	36.90	20.71	4.75	81.70	21.71
	Mar	0.86	40.71	19.16	0.43	85.51	20.16		Mar	9.50	36.97	21.26	4.75	81.77	22.26
	Apr	0.86	40.55	21.96	0.43	85.35	22.96		Apr	9.50	36.77	22.34	4.75	81.57	23.34
	May	0.86	40.57	25.66	0.43	85.37	26.66		May	9.50	36.86	24.52	4.75	81.66	25.52
	Jun	0.86	40.66	27.87	0.43	85.46	28.87		Jun	9.50	37.00	25.21	4.75	81.80	26.21
	Jul	0.86	40.85	29.65	0.43	85.65	30.65		Jul	9.50	37.14	27.07	4.75	81.94	28.07
	Aug	0.86	41.36	29.45	0.43	86.16	30.45		Aug	9.50	37.38	26.57	4.75	82.18	27.57
	Sep	0.86	41.56	29.01	0.43	86.36	30.01		Sep	9.50	37.40	26.56	4.75	82.20	27.56
	Oct	0.86	41.57	27.34	0.43	86.37	28.34		Oct	9.50	37.35	26.08	4.75	82.15	27.08
	Nov	0.86	41.56	24.97	0.43	86.36	25.97		Nov	9.50	37.26	24.66	4.75	82.06	25.66
2010	Dec	0.86	41.55	21.29	0.43	86.35	22.09	2010	Dec	9.50	37.49	22.88	4.75	82.29	23.88
	Jan	0.91	41.78	18.12	0.45	86.58	19.12		Jan	10.00	37.03	21.34	5.00	81.83	22.34
	Feb	0.91	41.94	17.46	0.45	86.74	18.46		Feb	10.00	37.11	20.65	5.00	81.91	21.65
	Mar	0.91	41.45	19.27	0.45	86.25	20.27		Mar	10.00	36.81	21.07	5.00	81.61	22.07
	Apr	0.91	41.28	22.24	0.45	86.08	23.24		Apr	10.00	36.77	22.10	5.00	81.57	23.10
	May	0.91	41.31	25.60	0.45	86.11	26.60		May	10.00	36.95	23.52	5.00	84.50	27.05
	Jun	0.91	41.34	28.10	0.45	86.14	29.10		Jun	10.00	37.00	25.20	5.00	81.80	26.20
	Jul	0.91	41.41	29.40	0.45	86.21	30.40		Jul	10.00	37.17	25.87	5.00	81.97	26.87
	Aug	0.91	41.68	29.84	0.45	86.48	30.84		Aug	10.00	37.30	26.28	5.00	82.10	27.28
	Sep	0.91	41.80	29.12	0.45	86.60	30.12		Sep	10.00	37.30	26.50	5.00	82.10	27.50
	Oct	0.91	42.05	27.97	0.45	86.85	28.97		Oct	10.00	37.21	25.96	5.00	82.01	26.96
	Nov	0.91	42.27	25.17	0.45	87.07	26.17		Nov	10.00	37.05	24.46	5.00	81.85	25.46
2011	Dec	0.91	42.44	21.06	0.45	87.24	22.06	2011	Dec	10.00	37.01	22.71	5.00	81.81	23.71
	Jan	0.95	41.80	17.70	0.48	86.60	18.70		Jan	10.50	37.12	21.23	5.25	81.92	22.23
	Feb	0.95	41.09	17.11	0.48	85.89	18.11		Feb	10.50	36.80	20.49	5.25	81.60	21.49
	Mar	0.95	40.66	18.99	0.48	85.46	19.99		Mar	10.50	36.81	21.02	5.25	81.61	22.02
	Apr	0.95	40.67	22.09	0.48	85.47	23.09		Apr	10.50	36.81	22.18	5.25	81.61	23.18
	May	0.95	40.56	25.51	0.48	85.36	26.51		May	10.50	36.93	24.06	5.25	81.73	25.06
	Jun	0.95	40.56	27.64	0.48	85.36	28.64		Jun	10.50	36.94	26.32	5.25	81.74	27.32
	Jul	0.95	40.78	29.47	0.48	85.58	30.47		Jul	10.50	37.13	26.05	5.25	81.93	27.05
	Aug	0.95	41.13	29.75	0.48	85.93	30.75		Aug	10.50	37.52	27.13	5.25	82.32	28.13
	Sep	0.95	41.51	29.33	0.48	86.31	30.33		Sep	10.50	37.34	26.80	5.25	82.14	27.80
	Oct	0.95	41.58	27.90	0.48	86.38	28.90		Oct	10.50	37.22	26.35	5.25	82.02	27.35
	Nov	0.95	41.71	24.44	0.48	86.51	25.44		Nov	10.50	37.35	24.92	5.25	82.15	25.92
2012	Dec	0.95	41.84	20.51	0.48	86.64	21.51	2012	Dec	10.50	37.34	23.18	5.25	82.14	24.18
	Jan	1.00	41.40	17.36	0.50	86.20	18.36		Jan	11.00	37.22	21.54	5.50	82.02	22.54
	Feb	1.00	40.83	17.17	0.50	85.63	18.17		Feb	11.00	37.18	20.65	5.50	81.98	21.65
	Mar	1.00	40.54	18.83	0.50	85.34	19.83		Mar	11.00	37.15	20.64	5.50	81.95	21.64
	Apr	1.00	40.15	21.91	0.50	84.95	22.91		Apr	11.00	36.90	21.94	5.50	81.70	22.94
	May	1.00	40.14	25.17	0.50	84.94	26.17		May	11.00	36.93	23.63	5.50	81.73	24.63
	Jun	1.00	40.26	27.47	0.50	85.06	28.47		Jun	11.00	36.99	25.42	5.50	81.79	26.42
	Jul	1.00	40.45	29.48	0.50	85.25	30.48		Jul	11.00	37.40	26.77	5.50	82.20	27.77
	Aug	1.00	40.77	29.81	0.50	85.57	30.81		Aug	11.00	37.37	26.86	5.50	82.17	27.86
	Sep	1.00	41.19	29.11	0.50	85.99	30.11		Sep	11.00	37.22	27.03	5.50	82.02	28.03
	Oct	1.00	41.56	27.67	0.50	86.36	28.67		Oct	11.00	37.12	26.33	5.50	81.92	27.33
	Nov	1.00	41.55	25.02	0.50	86.35	26.02		Nov	11.00	36.93	24.70	5.50	81.73	25.70
2013	Dec	1.00	41.84	20.87	0.50	86.64	21.87	2013	Dec	11.00	36.85	22.71	5.50	81.65	23.71
	Jan	1.05	41.99	17.96	0.52	86.79	18.96		Jan	11.50	36.91	21.32	5.75	81.71	22.32
	Feb	1.05	41.36	17.20	0.52	86.16	18.20		Feb	11.50	36.89	20.54	5.75	81.69	21.54
	Mar	1.05	41.32	19.10	0.52	86.12	20.10		Mar	11.50	36.62	21.22	5.75	81.42	22.22
	Apr	1.05	40.87	22.59	0.52	85.67	23.59		Apr	11.50	36.87	22.37	5.75	81.67	23.37
	May	1.05	40.84	25.41	0.52	85.64	26.41		May	11.50	36.93	23.95	5.75	81.73	24.95
	Jun	1.05	40.95	27.67	0.52	85.75	28.67		Jun	11.50	36.87	25.47	5.75	81.67	26.47
	Jul	1.05	41.24	29.86	0.52	86.04	30.86		Jul	11.50	37.10	26.67	5.75	81.90	27.67
	Aug	1.05	41.25	29.58	0.52	86.05	30.58		Aug	11.50	37.20	26.86	5.75	82.00	27.86
	Sep	1.05	41.19	28.87	0.52	85.99	29.87		Sep	11.50	37.39	26.92	5.75	82.19	27.92
	Oct	1.05	41.35	27.45	0.52	86.15	28.45		Oct	11.50	37.15	26.31	5.75	81.95	27.31

	Nov	1.05	41.54	24.66	0.52	86.34	25.66		Nov	11.50	37.12	24.90	5.75	81.92	25.90
	Dec	1.05	41.83	21.05	0.52	86.63	22.05		Dec	11.50	37.36	23.04	5.75	82.16	24.04
2014	Jan	1.09	41.79	17.64	0.55	86.59	18.64	2014	Jan	12.00	36.94	21.09	6.00	81.74	22.09
	Feb	1.09	41.38	17.36	0.55	86.18	18.36		Feb	12.00	37.02	20.55	6.00	81.82	21.55
	Mar	1.09	40.97	19.10	0.55	85.77	20.10		Mar	12.00	36.73	21.30	6.00	81.53	22.30
	Apr	1.09	40.85	22.29	0.55	85.65	23.29		Apr	12.00	36.88	22.76	6.00	81.68	23.76
	May	1.09	40.88	25.31	0.55	85.68	26.31		May	12.00	36.89	24.17	6.00	81.69	25.17
	Jun	1.09	40.96	27.79	0.55	85.76	28.79		Jun	12.00	37.04	24.83	6.00	81.84	25.83
	Jul	1.09	41.24	29.64	0.55	86.04	30.64		Jul	12.00	37.14	27.01	6.00	81.94	28.01
	Aug	1.09	41.67	29.80	0.55	86.47	30.80		Aug	12.00	37.26	27.57	6.00	82.06	28.57
	Sep	1.09	42.02	29.09	0.55	86.82	30.09		Sep	12.00	37.18	26.75	6.00	81.98	27.75
	Oct	1.09	42.28	27.90	0.55	87.08	28.90		Oct	12.00	37.37	25.79	6.00	82.17	26.79
	Nov	1.09	42.23	24.64	0.55	87.03	25.64		Nov	12.00	37.29	24.27	6.00	82.09	25.27
	Dec	1.09	42.36	20.55	0.55	87.16	21.55		Dec	12.00	37.14	22.40	6.00	81.94	23.40
2015	Jan	1.14	41.98	17.54	0.57	86.78	18.54	2015	Jan	12.50	37.18	21.25	6.25	81.98	22.25
	Feb	1.14	41.11	17.34	0.57	85.91	18.34		Feb	12.50	36.86	20.63	6.25	81.66	21.63
	Mar	1.14	40.97	19.10	0.57	85.77	20.10		Mar	12.50	36.73	21.30	6.25	81.53	22.30
	Apr	1.14	41.02	22.16	0.57	85.82	23.16		Apr	12.50	36.79	22.78	6.25	81.59	23.78
	May	1.14	41.17	25.78	0.57	85.97	26.78		May	12.50	36.80	24.00	6.25	81.60	25.00
	Jun	1.14	41.21	27.95	0.57	86.01	28.95		Jun	12.50	37.00	25.89	6.25	81.80	26.89
	Jul	1.14	41.19	29.68	0.57	85.99	30.68		Jul	12.50	37.06	26.53	6.25	81.86	27.53
	Aug	1.14	41.29	29.96	0.57	86.09	30.96		Aug	12.50	37.44	27.14	6.25	82.24	28.14
	Sep	1.14	41.48	29.51	0.57	86.28	30.51		Sep	12.50	37.31	27.50	6.25	82.11	28.50
	Oct	1.14	41.65	28.07	0.57	86.45	29.07		Oct	12.50	37.21	26.48	6.25	82.01	27.48
	Nov	1.14	41.86	24.73	0.57	86.66	25.73		Nov	12.50	37.16	24.46	6.25	81.96	25.46
	Dec	1.14	42.09	20.63	0.57	86.89	21.63		Dec	12.50	37.13	22.52	6.25	81.93	23.52

UAE (Quidfa) MED		Inflow			Outflow			UAE (Quidfa) MSF		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	1.65	36.90	21.02	1.08	51.90	31.02	2004	Jan	8.59	36.90	21.02	6.43	46.90	31.02
	Feb	1.65	36.73	20.65	1.08	51.73	30.65		Feb	8.59	36.73	20.65	6.43	46.73	30.65
	Mar	1.65	36.76	21.19	1.08	51.76	31.19		Mar	8.59	36.76	21.19	6.43	46.76	31.19
	Apr	1.65	36.93	22.52	1.08	51.93	32.52		Apr	8.59	36.93	22.52	6.43	46.93	32.52
	May	1.65	37.23	23.62	1.08	52.23	33.62		May	8.59	37.23	23.62	6.43	47.23	33.62
	Jun	1.65	37.17	24.99	1.08	52.17	34.99		Jun	8.59	37.17	24.99	6.43	47.17	34.99
	Jul	1.65	37.21	25.60	1.08	52.21	35.60		Jul	8.59	37.21	25.60	6.43	47.21	35.60
	Aug	1.65	37.08	26.57	1.08	52.08	36.57		Aug	8.59	37.08	26.57	6.43	47.08	36.57
	Sep	1.65	37.26	25.90	1.08	52.26	35.90		Sep	8.59	37.26	25.90	6.43	47.26	35.90
	Oct	1.65	37.19	25.52	1.08	52.19	35.52		Oct	8.59	37.19	25.52	6.43	47.19	35.52
	Nov	1.65	37.28	24.01	1.08	52.28	34.01		Nov	8.59	37.28	24.01	6.43	47.28	34.01
	Dec	1.65	37.05	22.28	1.08	52.05	32.28		Dec	8.59	37.05	22.28	6.43	47.05	32.28
2005	Jan	1.77	36.92	20.79	1.16	51.92	30.79	2005	Jan	9.20	36.92	20.79	6.89	46.92	30.79
	Feb	1.77	37.07	20.27	1.16	52.07	30.27		Feb	9.20	37.07	20.27	6.89	47.07	30.27
	Mar	1.77	36.72	20.76	1.16	51.72	30.76		Mar	9.20	36.72	20.76	6.89	46.72	30.76
	Apr	1.77	36.87	22.19	1.16	51.87	32.19		Apr	9.20	36.87	22.19	6.89	46.87	32.19
	May	1.77	36.98	23.32	1.16	51.98	33.32		May	9.20	36.98	23.32	6.89	46.98	33.32
	Jun	1.77	36.97	25.14	1.16	51.97	35.14		Jun	9.20	36.97	25.14	6.89	46.97	35.14
	Jul	1.77	37.20	26.81	1.16	52.20	36.81		Jul	9.20	37.20	26.81	6.89	47.20	36.81
	Aug	1.77	37.44	27.75	1.16	52.44	37.75		Aug	9.20	37.44	27.75	6.89	47.44	37.75
	Sep	1.77	37.38	26.30	1.16	52.38	36.30		Sep	9.20	37.38	26.30	6.89	47.38	36.30
	Oct	1.77	37.24	26.06	1.16	52.24	36.06		Oct	9.20	37.24	26.06	6.89	47.24	36.06
	Nov	1.77	37.20	24.59	1.16	52.20	34.59		Nov	9.20	37.20	24.59	6.89	47.20	34.59
	Dec	1.77	37.15	22.68	1.16	52.15	32.68		Dec	9.20	37.15	22.68	6.89	47.15	32.68
2006	Jan	1.89	36.99	21.05	1.24	51.99	31.05	2006	Jan	9.82	36.99	21.05	7.35	46.99	31.05
	Feb	1.89	36.72	20.43	1.24	51.72	30.43		Feb	9.82	36.72	20.43	7.35	46.72	30.43
	Mar	1.89	36.94	20.61	1.24	51.94	30.61		Mar	9.82	36.94	20.61	7.35	46.94	30.61
	Apr	1.89	36.88	22.57	1.24	51.88	32.57		Apr	9.82	36.88	22.57	7.35	46.88	32.57
	May	1.89	36.85	23.21	1.24	51.85	33.21		May	9.82	36.85	23.21	7.35	46.85	33.21
	Jun	1.89	36.89	25.96	1.24	51.89	35.96		Jun	9.82	36.89	25.96	7.35	46.89	35.96
	Jul	1.89	37.13	26.48	1.24	52.13	36.48		Jul	9.82	37.13	26.48	7.35	47.13	36.48
	Aug	1.89	37.53	26.66	1.24	52.53	36.66		Aug	9.82	37.53	26.66	7.35	47.53	36.66

	Sep	1.89	37.36	26.80	1.24	52.36	36.80		Sep	9.82	37.36	26.80	7.35	47.36	36.80
	Oct	1.89	37.31	26.32	1.24	52.31	36.32		Oct	9.82	37.31	26.32	7.35	47.31	36.32
	Nov	1.89	37.35	24.74	1.24	52.35	34.74		Nov	9.82	37.35	24.74	7.35	47.35	34.74
	Dec	1.89	37.05	22.50	1.24	52.05	32.50		Dec	9.82	37.05	22.50	7.35	47.05	32.50
2007	Jan	2.01	37.11	21.05	1.31	52.11	31.05	2007	Jan	10.43	37.11	21.05	7.80	47.11	31.05
	Feb	2.01	37.09	20.17	1.31	52.09	30.17		Feb	10.43	37.09	20.17	7.80	47.09	30.17
	Mar	2.01	36.71	20.57	1.31	51.71	30.57		Mar	10.43	36.71	20.57	7.80	46.71	30.57
	Apr	2.01	36.97	22.06	1.31	51.97	32.06		Apr	10.43	36.97	22.06	7.80	46.97	32.06
	May	2.01	36.90	23.29	1.31	51.90	33.29		May	10.43	36.90	23.29	7.80	46.90	33.29
	Jun	2.01	37.05	24.63	1.31	52.05	34.63		Jun	10.43	37.05	24.63	7.80	47.05	34.63
	Jul	2.01	37.14	26.77	1.31	52.14	36.77		Jul	10.43	37.14	26.77	7.80	47.14	36.77
	Aug	2.01	37.42	26.50	1.31	52.42	36.50		Aug	10.43	37.42	26.50	7.80	47.42	36.50
	Sep	2.01	37.30	26.70	1.31	52.30	36.70		Sep	10.43	37.30	26.70	7.80	47.30	36.70
	Oct	2.01	37.05	26.07	1.31	52.05	36.07		Oct	10.43	37.05	26.07	7.80	47.05	36.07
	Nov	2.01	37.07	24.45	1.31	52.07	34.45		Nov	10.43	37.07	24.45	7.80	47.70	34.45
	Dec	2.01	37.17	22.59	1.31	52.17	32.59		Dec	10.43	37.17	22.59	7.80	47.17	32.59
2008	Jan	2.13	37.15	21.29	1.39	52.15	31.29	2008	Jan	11.05	37.15	21.29	8.26	47.15	31.29
	Feb	2.13	36.77	20.61	1.39	51.77	30.61		Feb	11.05	36.77	20.61	8.26	46.77	30.61
	Mar	2.13	36.95	20.40	1.39	51.95	30.40		Mar	11.05	36.95	20.40	8.26	46.95	30.40
	Apr	2.13	36.75	22.61	1.39	51.75	32.61		Apr	11.05	36.75	22.61	8.26	46.75	32.61
	May	2.13	36.81	24.41	1.39	51.81	34.41		May	11.05	36.81	24.41	8.26	46.81	34.41
	Jun	2.13	36.91	25.12	1.39	51.91	35.12		Jun	11.05	36.91	25.12	8.26	46.91	35.12
	Jul	2.13	37.07	26.11	1.39	52.07	36.11		Jul	11.05	37.07	26.11	8.26	47.07	36.11
	Aug	2.13	37.35	27.31	1.39	52.35	37.31		Aug	11.05	37.35	27.31	8.26	47.35	37.31
	Sep	2.13	37.39	26.27	1.39	52.39	36.27		Sep	11.05	37.39	26.27	8.26	47.39	36.27
	Oct	2.13	37.26	26.07	1.39	52.26	36.07		Oct	11.05	37.26	26.07	8.26	47.26	36.07
	Nov	2.13	37.16	24.21	1.39	52.16	34.21		Nov	11.05	37.16	24.21	8.26	47.16	34.21
	Dec	2.13	37.12	22.69	1.39	52.12	32.69		Dec	11.05	37.12	22.69	8.26	47.12	32.69
2009	Jan	2.25	37.18	21.22	1.47	52.18	31.22	2009	Jan	11.66	37.18	21.22	8.72	47.18	31.22
	Feb	2.25	36.90	20.71	1.47	51.90	30.71		Feb	11.66	36.90	20.71	8.72	46.90	30.71
	Mar	2.25	36.97	21.26	1.47	51.97	31.26		Mar	11.66	36.97	21.26	8.72	46.97	31.26
	Apr	2.25	36.77	22.34	1.47	51.77	32.34		Apr	11.66	36.77	22.34	8.72	46.77	32.34
	May	2.25	36.86	24.52	1.47	51.86	34.52		May	11.66	36.86	24.52	8.72	46.86	34.52
	Jun	2.25	37.00	25.21	1.47	52.00	35.21		Jun	11.66	37.00	25.21	8.72	47.00	35.21
	Jul	2.25	37.14	27.07	1.47	52.14	37.07		Jul	11.66	37.14	27.07	8.72	47.14	37.07
	Aug	2.25	37.38	26.57	1.47	52.38	36.57		Aug	11.66	37.38	26.57	8.72	47.38	36.57
	Sep	2.25	37.40	26.56	1.47	52.40	36.56		Sep	11.66	37.40	26.56	8.72	47.40	36.56
	Oct	2.25	37.35	26.08	1.47	52.35	36.08		Oct	11.66	37.35	26.08	8.72	47.35	36.08
	Nov	2.25	37.26	24.66	1.47	52.26	34.66		Nov	11.66	37.26	24.66	8.72	47.26	34.66
	Dec	2.25	37.49	22.88	1.47	52.49	32.88		Dec	11.66	37.49	22.88	8.72	47.49	32.88
2010	Jan	2.36	37.03	21.34	1.55	52.03	31.34	2010	Jan	12.27	37.03	21.34	9.18	47.03	31.34
	Feb	2.36	37.11	20.65	1.55	52.11	30.65		Feb	12.27	37.11	20.65	9.18	47.11	30.65
	Mar	2.36	36.81	21.07	1.55	51.81	31.07		Mar	12.27	36.81	21.07	9.18	46.81	31.07
	Apr	2.36	36.77	22.10	1.55	51.77	32.10		Apr	12.27	36.77	22.10	9.18	46.77	32.10
	May	2.36	36.95	23.52	1.55	54.70	36.05		May	12.27	36.95	23.52	9.18	49.70	36.05
	Jun	2.36	37.00	25.20	1.55	52.00	35.20		Jun	12.27	37.00	25.20	9.18	47.00	35.20
	Jul	2.36	37.17	25.87	1.55	52.17	35.87		Jul	12.27	37.17	25.87	9.18	47.17	35.87
	Aug	2.36	37.30	26.28	1.55	52.30	36.28		Aug	12.27	37.30	26.28	9.18	47.30	36.28
	Sep	2.36	37.30	26.50	1.55	52.30	36.50		Sep	12.27	37.30	26.50	9.18	47.30	36.50
	Oct	2.36	37.21	25.96	1.55	52.21	35.96		Oct	12.27	37.21	25.96	9.18	47.21	35.96
	Nov	2.36	37.05	24.46	1.55	52.05	34.46		Nov	12.27	37.05	24.46	9.18	47.05	34.46
	Dec	2.36	37.01	22.71	1.55	52.01	32.71		Dec	12.27	37.01	22.71	9.18	47.01	32.71
2011	Jan	2.48	37.12	21.23	1.62	52.12	31.23	2011	Jan	12.89	37.12	21.23	9.64	47.12	31.23
	Feb	2.48	36.80	20.49	1.62	51.80	30.49		Feb	12.89	36.80	20.49	9.64	46.80	30.49
	Mar	2.48	36.81	21.02	1.62	51.81	31.02		Mar	12.89	36.81	21.02	9.64	46.81	31.02
	Apr	2.48	36.81	22.18	1.62	51.81	32.18		Apr	12.89	36.81	22.18	9.64	46.81	32.18
	May	2.48	36.93	24.06	1.62	51.93	34.06		May	12.89	36.93	24.06	9.64	46.93	34.06
	Jun	2.48	36.94	26.32	1.62	51.94	36.32		Jun	12.89	36.94	26.32	9.64	46.94	36.32
	Jul	2.48	37.13	26.05	1.62	52.13	36.05		Jul	12.89	37.13	26.05	9.64	47.13	36.05
	Aug	2.48	37.52	27.13	1.62	52.52	37.13		Aug	12.89	37.52	27.13	9.64	47.52	37.13
	Sep	2.48	37.34	26.80	1.62	52.34	36.80		Sep	12.89	37.34	26.80	9.64	47.34	36.80
	Oct	2.48	37.22	26.35	1.62	52.22	36.35		Oct	12.89	37.22	26.35	9.64	47.22	36.35
	Nov	2.48	37.35	24.92	1.62	52.35	34.92		Nov	12.89	37.35	24.92	9.64	47.35	34.92
	Dec	2.48	37.34	23.18	1.62	52.34	33.18		Dec	12.89	37.34	23.18	9.64	47.34	33.18

2012	Jan	2.60	37.22	21.54	1.70	52.22	31.54	2012	Jan	13.50	37.22	21.54	10.10	47.22	31.54
	Feb	2.60	37.18	20.65	1.70	52.18	30.65		Feb	13.50	37.18	20.65	10.10	47.18	30.65
	Mar	2.60	37.15	20.64	1.70	52.15	30.64		Mar	13.50	37.15	20.64	10.10	47.15	30.64
	Apr	2.60	36.90	21.94	1.70	51.90	31.94		Apr	13.50	36.90	21.94	10.10	46.90	31.94
	May	2.60	36.93	23.63	1.70	51.93	33.63		May	13.50	36.93	23.63	10.10	46.93	33.63
	Jun	2.60	36.99	25.42	1.70	51.99	35.42		Jun	13.50	36.99	25.42	10.10	46.99	35.42
	Jul	2.60	37.40	26.77	1.70	52.40	36.77		Jul	13.50	37.40	26.77	10.10	47.40	36.77
	Aug	2.60	37.37	26.86	1.70	52.37	36.86		Aug	13.50	37.37	26.86	10.10	47.37	36.86
	Sep	2.60	37.22	27.03	1.70	52.22	37.03		Sep	13.50	37.22	27.03	10.10	47.22	37.03
	Oct	2.60	37.12	26.33	1.70	52.12	36.33		Oct	13.50	37.12	26.33	10.10	47.12	36.33
	Nov	2.60	36.93	24.70	1.70	51.93	34.70		Nov	13.50	36.93	24.70	10.10	46.93	34.70
	Dec	2.60	36.85	22.71	1.70	51.85	32.71		Dec	13.50	36.85	22.71	10.10	46.85	32.71
2013	Jan	2.72	36.91	21.32	1.78	51.91	31.32	2013	Jan	14.11	36.91	21.32	10.56	46.91	31.32
	Feb	2.72	36.89	20.54	1.78	51.89	30.54		Feb	14.11	36.89	20.54	10.56	46.89	30.54
	Mar	2.72	36.62	21.22	1.78	51.62	31.22		Mar	14.11	36.62	21.22	10.56	46.62	31.22
	Apr	2.72	36.87	22.37	1.78	51.87	32.37		Apr	14.11	36.87	22.37	10.56	46.87	32.37
	May	2.72	36.93	23.95	1.78	51.93	33.95		May	14.11	36.93	23.95	10.56	46.93	33.95
	Jun	2.72	36.87	25.47	1.78	51.87	35.47		Jun	14.11	36.87	25.47	10.56	46.87	35.47
	Jul	2.72	37.10	26.67	1.78	52.10	36.67		Jul	14.11	37.10	26.67	10.56	47.10	36.67
	Aug	2.72	37.20	26.86	1.78	52.20	36.86		Aug	14.11	37.20	26.86	10.56	47.20	36.86
	Sep	2.72	37.39	26.92	1.78	52.39	36.92		Sep	14.11	37.39	26.92	10.56	47.39	36.92
	Oct	2.72	37.15	26.31	1.78	52.15	36.31		Oct	14.11	37.15	26.31	10.56	47.15	36.31
	Nov	2.72	37.12	24.90	1.78	52.12	34.90		Nov	14.11	37.12	24.90	10.56	47.12	34.90
	Dec	2.72	37.36	23.04	1.78	52.36	33.04		Dec	14.11	37.36	23.04	10.56	47.36	33.04
2014	Jan	2.84	36.94	21.09	1.85	51.94	31.09	2014	Jan	14.73	36.94	21.09	11.02	46.94	31.09
	Feb	2.84	37.02	20.55	1.85	52.02	30.55		Feb	14.73	37.02	20.55	11.02	47.02	30.55
	Mar	2.84	36.73	21.30	1.85	51.73	31.30		Mar	14.73	36.73	21.30	11.02	46.73	31.30
	Apr	2.84	36.88	22.76	1.85	51.88	32.76		Apr	14.73	36.88	22.76	11.02	46.88	32.76
	May	2.84	36.89	24.17	1.85	51.89	34.17		May	14.73	36.89	24.17	11.02	46.89	34.17
	Jun	2.84	37.04	24.83	1.85	52.04	34.83		Jun	14.73	37.04	24.83	11.02	47.04	34.83
	Jul	2.84	37.14	27.01	1.85	52.14	37.01		Jul	14.73	37.14	27.01	11.02	47.14	37.01
	Aug	2.84	37.26	27.57	1.85	52.26	37.57		Aug	14.73	37.26	27.57	11.02	47.26	37.57
	Sep	2.84	37.18	26.75	1.85	52.18	36.75		Sep	14.73	37.18	26.75	11.02	47.18	36.75
	Oct	2.84	37.37	25.79	1.85	52.37	35.79		Oct	14.73	37.37	25.79	11.02	47.37	35.79
	Nov	2.84	37.29	24.27	1.85	52.29	34.27		Nov	14.73	37.29	24.27	11.02	47.29	34.27
	Dec	2.84	37.14	22.40	1.85	52.14	32.40		Dec	14.73	37.14	22.40	11.02	47.14	32.40
2015	Jan	2.95	37.18	21.25	1.93	52.18	31.25	2015	Jan	15.34	37.18	21.25	11.48	47.18	31.25
	Feb	2.95	36.86	20.63	1.93	51.86	30.63		Feb	15.34	36.86	20.63	11.48	46.86	30.63
	Mar	2.95	36.73	21.30	1.93	51.73	31.30		Mar	15.34	36.73	21.30	11.48	46.73	31.30
	Apr	2.95	36.79	22.78	1.93	51.79	32.78		Apr	15.34	36.79	22.78	11.48	46.79	32.78
	May	2.95	36.80	24.00	1.93	51.80	34.00		May	15.34	36.80	24.00	11.48	46.80	34.00
	Jun	2.95	37.00	25.89	1.93	52.00	35.89		Jun	15.34	37.00	25.89	11.48	47.00	35.89
	Jul	2.95	37.06	26.53	1.93	52.06	36.53		Jul	15.34	37.06	26.53	11.48	47.06	36.53
	Aug	2.95	37.44	27.14	1.93	52.44	37.14		Aug	15.34	37.44	27.14	11.48	47.44	37.14
	Sep	2.95	37.31	27.50	1.93	52.31	37.50		Sep	15.34	37.31	27.50	11.48	47.31	37.50
	Oct	2.95	37.21	26.48	1.93	52.21	36.48		Oct	15.34	37.21	26.48	11.48	47.21	36.48
	Nov	2.95	37.16	24.46	1.93	52.16	34.46		Nov	15.34	37.16	24.46	11.48	47.16	34.46
	Dec	2.95	37.13	22.52	1.93	52.13	32.52		Dec	15.34	37.13	22.52	11.48	47.13	32.52

UAE (Quidfa) Hy-MED		Inflow			Outflow			UAE (Quidfa) Hy-RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	6.49	36.90	21.02	4.33	51.90	31.02	2004	Jan	2.42	36.90	21.02	1.21	81.70	22.02
	Feb	6.49	36.73	20.65	4.33	51.73	30.65		Feb	2.42	36.73	20.65	1.21	81.53	21.65
	Mar	6.49	36.76	21.19	4.33	51.76	31.19		Mar	2.42	36.76	21.19	1.21	81.56	22.19
	Apr	6.49	36.93	22.52	4.33	51.93	32.52		Apr	2.42	36.93	22.52	1.21	81.73	23.52
	May	6.49	37.23	23.62	4.33	52.23	33.62		May	2.42	37.23	23.62	1.21	82.03	24.62
	Jun	6.49	37.17	24.99	4.33	52.17	34.99		Jun	2.42	37.17	24.99	1.21	81.97	25.99
	Jul	6.49	37.21	25.60	4.33	52.21	35.60		Jul	2.42	37.21	25.60	1.21	82.01	26.60
	Aug	6.49	37.08	26.57	4.33	52.08	36.57		Aug	2.42	37.08	26.57	1.21	81.88	27.57
	Sep	6.49	37.26	25.90	4.33	52.26	35.90		Sep	2.42	37.26	25.90	1.21	82.06	26.90
	Oct	6.49	37.19	25.52	4.33	52.19	35.52		Oct	2.42	37.19	25.52	1.21	81.99	26.52

	Nov	6.49	37.28	24.01	4.33	52.28	34.01		Nov	2.42	37.28	24.01	1.21	82.08	25.01
	Dec	6.49	37.05	22.28	4.33	52.05	32.28		Dec	2.42	37.05	22.28	1.21	81.85	23.28
2005	Jan	6.95	36.92	20.79	4.64	51.92	30.79	2005	Jan	2.59	36.92	20.79	1.30	81.72	21.79
	Feb	6.95	37.07	20.27	4.64	52.07	30.27		Feb	2.59	37.07	20.27	1.30	81.87	21.27
	Mar	6.95	36.72	20.76	4.64	51.72	30.76		Mar	2.59	36.72	20.76	1.30	81.52	21.76
	Apr	6.95	36.87	22.19	4.64	51.87	32.19		Apr	2.59	36.87	22.19	1.30	81.67	23.19
	May	6.95	36.98	23.32	4.64	51.98	33.32		May	2.59	36.98	23.32	1.30	81.78	24.32
	Jun	6.95	36.97	25.14	4.64	51.97	35.14		Jun	2.59	36.97	25.14	1.30	81.77	26.14
	Jul	6.95	37.20	26.81	4.64	52.20	36.81		Jul	2.59	37.20	26.81	1.30	82.00	27.81
	Aug	6.95	37.44	27.75	4.64	52.44	37.75		Aug	2.59	37.44	27.75	1.30	82.24	28.75
	Sep	6.95	37.38	26.30	4.64	52.38	36.30		Sep	2.59	37.38	26.30	1.30	82.18	27.30
	Oct	6.95	37.24	26.06	4.64	52.24	36.06		Oct	2.59	37.24	26.06	1.30	82.04	27.06
	Nov	6.95	37.20	24.59	4.64	52.20	34.59		Nov	2.59	37.20	24.59	1.30	82.00	25.59
	Dec	6.95	37.15	22.68	4.64	52.15	32.68		Dec	2.59	37.15	22.68	1.30	81.95	23.68
2006	Jan	7.42	36.99	21.05	4.95	51.99	31.05	2006	Jan	2.76	36.99	21.05	1.38	81.79	22.05
	Feb	7.42	36.72	20.43	4.95	51.72	30.43		Feb	2.76	36.72	20.43	1.38	81.52	21.43
	Mar	7.42	36.94	20.61	4.95	51.94	30.61		Mar	2.76	36.94	20.61	1.38	81.74	21.61
	Apr	7.42	36.88	22.57	4.95	51.88	32.57		Apr	2.76	36.88	22.57	1.38	81.68	23.57
	May	7.42	36.85	23.21	4.95	51.85	33.21		May	2.76	36.85	23.21	1.38	81.65	24.21
	Jun	7.42	36.89	25.96	4.95	51.89	35.96		Jun	2.76	36.89	25.96	1.38	81.69	26.96
	Jul	7.42	37.13	26.48	4.95	52.13	36.48		Jul	2.76	37.13	26.48	1.38	81.93	27.48
	Aug	7.42	37.53	26.66	4.95	52.53	36.66		Aug	2.76	37.53	26.66	1.38	82.33	27.66
	Sep	7.42	37.36	26.80	4.95	52.36	36.80		Sep	2.76	37.36	26.80	1.38	82.16	27.80
	Oct	7.42	37.31	26.32	4.95	52.31	36.32		Oct	2.76	37.31	26.32	1.38	82.11	27.31
	Nov	7.42	37.35	24.74	4.95	52.35	34.74		Nov	2.76	37.35	24.74	1.38	82.15	25.74
	Dec	7.42	37.05	22.50	4.95	52.05	32.50		Dec	2.76	37.05	22.50	1.38	81.85	23.50
2007	Jan	7.88	37.11	21.05	5.25	52.11	31.05	2007	Jan	2.94	37.11	21.05	1.47	81.91	22.05
	Feb	7.88	37.09	20.17	5.25	52.09	30.17		Feb	2.94	37.09	20.17	1.47	81.89	21.17
	Mar	7.88	36.71	20.57	5.25	51.71	30.57		Mar	2.94	36.71	20.57	1.47	81.51	21.57
	Apr	7.88	36.97	22.06	5.25	51.97	32.06		Apr	2.94	36.97	22.06	1.47	81.77	23.06
	May	7.88	36.90	23.29	5.25	51.90	33.29		May	2.94	36.90	23.29	1.47	81.70	24.29
	Jun	7.88	37.05	24.63	5.25	52.05	34.63		Jun	2.94	37.05	24.63	1.47	81.85	25.63
	Jul	7.88	37.14	26.77	5.25	52.14	36.77		Jul	2.94	37.14	26.77	1.47	81.94	27.77
	Aug	7.88	37.42	26.50	5.25	52.42	36.50		Aug	2.94	37.42	26.50	1.47	82.22	27.50
	Sep	7.88	37.30	26.70	5.25	52.30	36.70		Sep	2.94	37.30	26.70	1.47	82.10	27.70
	Oct	7.88	37.05	26.07	5.25	52.05	36.07		Oct	2.94	37.05	26.07	1.47	81.85	27.07
	Nov	7.88	37.07	24.45	5.25	52.07	34.45		Nov	2.94	37.07	24.45	1.47	81.87	25.45
	Dec	7.88	37.17	22.59	5.25	52.17	32.59		Dec	2.94	37.17	22.59	1.47	81.97	23.59
2008	Jan	8.35	37.15	21.29	5.56	52.15	31.29	2008	Jan	3.11	37.15	21.29	1.55	81.95	22.29
	Feb	8.35	36.77	20.61	5.56	51.77	30.61		Feb	3.11	36.77	20.61	1.55	81.57	21.61
	Mar	8.35	36.95	20.40	5.56	51.95	30.40		Mar	3.11	36.95	20.40	1.55	81.75	21.40
	Apr	8.35	36.75	22.61	5.56	51.75	32.61		Apr	3.11	36.75	22.61	1.55	81.55	23.61
	May	8.35	36.81	24.41	5.56	51.81	34.41		May	3.11	36.81	24.41	1.55	81.61	25.41
	Jun	8.35	36.91	25.12	5.56	51.91	35.12		Jun	3.11	36.91	25.12	1.55	81.71	26.12
	Jul	8.35	37.07	26.11	5.56	52.07	36.11		Jul	3.11	37.07	26.11	1.55	81.87	27.11
	Aug	8.35	37.35	27.31	5.56	52.35	37.31		Aug	3.11	37.35	27.31	1.55	82.15	28.31
	Sep	8.35	37.39	26.27	5.56	52.39	36.27		Sep	3.11	37.39	26.27	1.55	82.19	27.27
	Oct	8.35	37.26	26.07	5.56	52.26	36.07		Oct	3.11	37.26	26.07	1.55	82.06	27.07
	Nov	8.35	37.16	24.21	5.56	52.16	34.21		Nov	3.11	37.16	24.21	1.55	81.96	25.21
	Dec	8.35	37.12	22.69	5.56	52.12	32.69		Dec	3.11	37.12	22.69	1.55	81.92	23.69
2009	Jan	8.81	37.18	21.22	5.87	52.18	31.22	2009	Jan	3.28	37.18	21.22	1.64	81.98	22.22
	Feb	8.81	36.90	20.71	5.87	51.90	30.71		Feb	3.28	36.90	20.71	1.64	81.70	21.71
	Mar	8.81	36.97	21.26	5.87	51.97	31.26		Mar	3.28	36.97	21.26	1.64	81.77	22.26
	Apr	8.81	36.77	22.34	5.87	51.77	32.34		Apr	3.28	36.77	22.34	1.64	81.57	23.34
	May	8.81	36.86	24.52	5.87	51.86	34.52		May	3.28	36.86	24.52	1.64	81.66	25.52
	Jun	8.81	37.00	25.21	5.87	52.00	35.21		Jun	3.28	37.00	25.21	1.64	81.80	26.21
	Jul	8.81	37.14	27.07	5.87	52.14	37.07		Jul	3.28	37.14	27.07	1.64	81.94	28.07
	Aug	8.81	37.38	26.57	5.87	52.38	36.57		Aug	3.28	37.38	26.57	1.64	82.18	27.57
	Sep	8.81	37.40	26.56	5.87	52.40	36.56		Sep	3.28	37.40	26.56	1.64	82.20	27.56
	Oct	8.81	37.35	26.08	5.87	52.35	36.08		Oct	3.28	37.35	26.08	1.64	82.15	27.08
	Nov	8.81	37.26	24.66	5.87	52.26	34.66		Nov	3.28	37.26	24.66	1.64	82.06	25.66
	Dec	8.81	37.49	22.88	5.87	52.49	32.88		Dec	3.28	37.49	22.88	1.64	82.29	23.88
2010	Jan	9.27	37.03	21.34	6.18	52.03	31.34	2010	Jan	3.45	37.03	21.34	1.73	81.83	22.34
	Feb	9.27	37.11	20.65	6.18	52.11	30.65		Feb	3.45	37.11	20.65	1.73	81.91	21.65

	Mar	9.27	36.81	21.07	6.18	51.81	31.07		Mar	3.45	36.81	21.07	1.73	81.61	22.07
	Apr	9.27	36.77	22.10	6.18	51.77	32.10		Apr	3.45	36.77	22.10	1.73	81.57	23.10
	May	9.27	36.95	23.52	6.18	54.70	36.05		May	3.45	36.95	23.52	1.73	84.50	27.05
	Jun	9.27	37.00	25.20	6.18	52.00	35.20		Jun	3.45	37.00	25.20	1.73	81.80	26.20
	Jul	9.27	37.17	25.87	6.18	52.17	35.87		Jul	3.45	37.17	25.87	1.73	81.97	26.87
	Aug	9.27	37.30	26.28	6.18	52.30	36.28		Aug	3.45	37.30	26.28	1.73	82.10	27.28
	Sep	9.27	37.30	26.50	6.18	52.30	36.50		Sep	3.45	37.30	26.50	1.73	82.10	27.50
	Oct	9.27	37.21	25.96	6.18	52.21	35.96		Oct	3.45	37.21	25.96	1.73	82.01	26.96
	Nov	9.27	37.05	24.46	6.18	52.05	34.46		Nov	3.45	37.05	24.46	1.73	81.85	25.46
	Dec	9.27	37.01	22.71	6.18	52.01	32.71		Dec	3.45	37.01	22.71	1.73	81.81	23.71
2011	Jan	9.74	37.12	21.23	6.49	52.12	31.23	2011	Jan	3.63	37.12	21.23	1.81	81.92	22.23
	Feb	9.74	36.80	20.49	6.49	51.80	30.49		Feb	3.63	36.80	20.49	1.81	81.60	21.49
	Mar	9.74	36.81	21.02	6.49	51.81	31.02		Mar	3.63	36.81	21.02	1.81	81.61	22.02
	Apr	9.74	36.81	22.18	6.49	51.81	32.18		Apr	3.63	36.81	22.18	1.81	81.61	23.18
	May	9.74	36.93	24.06	6.49	51.93	34.06		May	3.63	36.93	24.06	1.81	81.73	25.06
	Jun	9.74	36.94	26.32	6.49	51.94	36.32		Jun	3.63	36.94	26.32	1.81	81.74	27.32
	Jul	9.74	37.13	26.05	6.49	52.13	36.05		Jul	3.63	37.13	26.05	1.81	81.93	27.05
	Aug	9.74	37.52	27.13	6.49	52.52	37.13		Aug	3.63	37.52	27.13	1.81	82.32	28.13
	Sep	9.74	37.34	26.80	6.49	52.34	36.80		Sep	3.63	37.34	26.80	1.81	82.14	27.80
	Oct	9.74	37.22	26.35	6.49	52.22	36.35		Oct	3.63	37.22	26.35	1.81	82.02	27.35
	Nov	9.74	37.35	24.92	6.49	52.35	34.92		Nov	3.63	37.35	24.92	1.81	82.15	25.92
	Dec	9.74	37.34	23.18	6.49	52.34	33.18		Dec	3.63	37.34	23.18	1.81	82.14	24.18
2012	Jan	10.20	37.22	21.54	6.80	52.22	31.54	2012	Jan	3.80	37.22	21.54	1.90	82.02	22.54
	Feb	10.20	37.18	20.65	6.80	52.18	30.65		Feb	3.80	37.18	20.65	1.90	81.98	21.65
	Mar	10.20	37.15	20.64	6.80	52.15	30.64		Mar	3.80	37.15	20.64	1.90	81.95	21.64
	Apr	10.20	36.90	21.94	6.80	51.90	31.94		Apr	3.80	36.90	21.94	1.90	81.70	22.94
	May	10.20	36.93	23.63	6.80	51.93	33.63		May	3.80	36.93	23.63	1.90	81.73	24.63
	Jun	10.20	36.99	25.42	6.80	51.99	35.42		Jun	3.80	36.99	25.42	1.90	81.79	26.42
	Jul	10.20	37.40	26.77	6.80	52.40	36.77		Jul	3.80	37.40	26.77	1.90	82.20	27.77
	Aug	10.20	37.37	26.86	6.80	52.37	36.86		Aug	3.80	37.37	26.86	1.90	82.17	27.86
	Sep	10.20	37.22	27.03	6.80	52.22	37.03		Sep	3.80	37.22	27.03	1.90	82.02	28.03
	Oct	10.20	37.12	26.33	6.80	52.12	36.33		Oct	3.80	37.12	26.33	1.90	81.92	27.33
	Nov	10.20	36.93	24.70	6.80	51.93	34.70		Nov	3.80	36.93	24.70	1.90	81.73	25.70
	Dec	10.20	36.85	22.71	6.80	51.85	32.71		Dec	3.80	36.85	22.71	1.90	81.65	23.71
2013	Jan	10.66	36.91	21.32	7.11	51.91	31.32	2013	Jan	3.97	36.91	21.32	1.99	81.71	22.32
	Feb	10.66	36.89	20.54	7.11	51.89	30.54		Feb	3.97	36.89	20.54	1.99	81.69	21.54
	Mar	10.66	36.62	21.22	7.11	51.62	31.22		Mar	3.97	36.62	21.22	1.99	81.42	22.22
	Apr	10.66	36.87	22.37	7.11	51.87	32.37		Apr	3.97	36.87	22.37	1.99	81.67	23.37
	May	10.66	36.93	23.95	7.11	51.93	33.95		May	3.97	36.93	23.95	1.99	81.73	24.95
	Jun	10.66	36.87	25.47	7.11	51.87	35.47		Jun	3.97	36.87	25.47	1.99	81.67	26.47
	Jul	10.66	37.10	26.67	7.11	52.10	36.67		Jul	3.97	37.10	26.67	1.99	81.90	27.67
	Aug	10.66	37.20	26.86	7.11	52.20	36.86		Aug	3.97	37.20	26.86	1.99	82.00	27.86
	Sep	10.66	37.39	26.92	7.11	52.39	36.92		Sep	3.97	37.39	26.92	1.99	82.19	27.92
	Oct	10.66	37.15	26.31	7.11	52.15	36.31		Oct	3.97	37.15	26.31	1.99	81.95	27.31
	Nov	10.66	37.12	24.90	7.11	52.12	34.90		Nov	3.97	37.12	24.90	1.99	81.92	25.90
	Dec	10.66	37.36	23.04	7.11	52.36	33.04		Dec	3.97	37.36	23.04	1.99	82.16	24.04
2014	Jan	11.13	36.94	21.09	7.42	51.94	31.09	2014	Jan	4.15	36.94	21.09	2.07	81.74	22.09
	Feb	11.13	37.02	20.55	7.42	52.02	30.55		Feb	4.15	37.02	20.55	2.07	81.82	21.55
	Mar	11.13	36.73	21.30	7.42	51.73	31.30		Mar	4.15	36.73	21.30	2.07	81.53	22.30
	Apr	11.13	36.88	22.76	7.42	51.88	32.76		Apr	4.15	36.88	22.76	2.07	81.68	23.76
	May	11.13	36.89	24.17	7.42	51.89	34.17		May	4.15	36.89	24.17	2.07	81.69	25.17
	Jun	11.13	37.04	24.83	7.42	52.04	34.83		Jun	4.15	37.04	24.83	2.07	81.84	25.83
	Jul	11.13	37.14	27.01	7.42	52.14	37.01		Jul	4.15	37.14	27.01	2.07	81.94	28.01
	Aug	11.13	37.26	27.57	7.42	52.26	37.57		Aug	4.15	37.26	27.57	2.07	82.06	28.57
	Sep	11.13	37.18	26.75	7.42	52.18	36.75		Sep	4.15	37.18	26.75	2.07	81.98	27.75
	Oct	11.13	37.37	25.79	7.42	52.37	35.79		Oct	4.15	37.37	25.79	2.07	82.17	26.79
	Nov	11.13	37.29	24.27	7.42	52.29	34.27		Nov	4.15	37.29	24.27	2.07	82.09	25.27
	Dec	11.13	37.14	22.40	7.42	52.14	32.40		Dec	4.15	37.14	22.40	2.07	81.94	23.40
2015	Jan	11.59	37.18	21.25	7.73	52.18	31.25	2015	Jan	4.32	37.18	21.25	2.16	81.98	22.25
	Feb	11.59	36.86	20.63	7.73	51.86	30.63		Feb	4.32	36.86	20.63	2.16	81.66	21.63
	Mar	11.59	36.73	21.30	7.73	51.73	31.30		Mar	4.32	36.73	21.30	2.16	81.53	22.30
	Apr	11.59	36.79	22.78	7.73	51.79	32.78		Apr	4.32	36.79	22.78	2.16	81.59	23.78
	May	11.59	36.80	24.00	7.73	51.80	34.00		May	4.32	36.80	24.00	2.16	81.60	25.00
	Jun	11.59	37.00	25.89	7.73	52.00	35.89		Jun	4.32	37.00	25.89	2.16	81.80	26.89

	Jul	11.59	37.06	26.53	7.73	52.06	36.53		Jul	4.32	37.06	26.53	2.16	81.86	27.53
	Aug	11.59	37.44	27.14	7.73	52.44	37.14		Aug	4.32	37.44	27.14	2.16	82.24	28.14
	Sep	11.59	37.31	27.50	7.73	52.31	37.50		Sep	4.32	37.31	27.50	2.16	82.11	28.50
	Oct	11.59	37.21	26.48	7.73	52.21	36.48		Oct	4.32	37.21	26.48	2.16	82.01	27.48
	Nov	11.59	37.16	24.46	7.73	52.16	34.46		Nov	4.32	37.16	24.46	2.16	81.96	25.46
	Dec	11.59	37.13	22.52	7.73	52.13	32.52		Dec	4.32	37.13	22.52	2.16	81.93	23.52

UAE (Layyah) MED		Inflow			Outflow			UAE (Layyah) MSF		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	2.61	39.29	18.88	1.72	54.29	28.88	2004	Jan	7.41	39.29	18.88	5.58	49.29	28.88
	Feb	2.61	39.30	17.88	1.72	54.30	27.88		Feb	7.41	39.30	17.88	5.58	49.30	27.88
	Mar	2.61	39.16	19.06	1.72	54.16	29.06		Mar	7.41	39.16	19.06	5.58	49.16	29.06
	Apr	2.61	38.94	21.99	1.72	53.94	31.99		Apr	7.41	38.94	21.99	5.58	48.94	31.99
	May	2.61	38.69	25.19	1.72	53.69	35.19		May	7.41	38.69	25.19	5.58	48.69	35.19
	Jun	2.61	38.72	27.56	1.72	53.72	37.56		Jun	7.41	38.72	27.56	5.58	48.72	37.56
	Jul	2.61	39.24	29.57	1.72	54.24	39.57		Jul	7.41	39.24	29.57	5.58	49.24	39.57
	Aug	2.61	39.07	29.91	1.72	54.07	39.91		Aug	7.41	39.07	29.91	5.58	49.07	39.91
	Sep	2.61	39.45	29.53	1.72	54.45	39.53		Sep	7.41	39.45	29.53	5.58	49.45	39.53
	Oct	2.61	39.58	28.26	1.72	54.58	38.26		Oct	7.41	39.58	28.26	5.58	49.58	38.26
	Nov	2.61	39.43	25.83	1.72	54.43	35.83		Nov	7.41	39.43	25.83	5.58	49.43	35.83
	Dec	2.61	39.90	22.11	1.72	54.90	32.11		Dec	7.41	39.90	22.11	5.58	49.90	32.11
2005	Jan	2.80	39.99	18.49	1.84	54.99	28.49	2005	Jan	7.45	39.99	18.49	5.61	49.99	28.49
	Feb	2.80	39.24	17.99	1.84	54.24	27.99		Feb	7.45	39.24	17.99	5.61	49.24	27.99
	Mar	2.80	38.95	19.12	1.84	53.95	29.12		Mar	7.45	38.95	19.12	5.61	48.95	29.12
	Apr	2.80	39.04	22.24	1.84	54.04	32.24		Apr	7.45	39.04	22.24	5.61	49.04	32.24
	May	2.80	38.36	24.67	1.84	53.36	34.67		May	7.45	38.36	24.67	5.61	48.36	34.67
	Jun	2.80	38.79	27.55	1.84	53.79	37.55		Jun	7.45	38.79	27.55	5.61	48.79	37.55
	Jul	2.80	39.40	29.35	1.84	54.40	39.35		Jul	7.45	39.40	29.35	5.61	49.40	39.35
	Aug	2.80	39.71	30.11	1.84	54.71	40.11		Aug	7.45	39.71	30.11	5.61	49.71	40.11
	Sep	2.80	39.91	29.64	1.84	54.91	39.64		Sep	7.45	39.91	29.64	5.61	49.91	39.64
	Oct	2.80	39.71	28.39	1.84	54.71	38.39		Oct	7.45	39.71	28.39	5.61	49.71	38.39
	Nov	2.80	38.98	25.62	1.84	53.98	35.62		Nov	7.45	38.98	25.62	5.61	48.98	35.62
	Dec	2.80	39.47	21.97	1.84	54.47	31.97		Dec	7.45	39.47	21.97	5.61	49.47	31.97
2006	Jan	2.98	39.92	19.02	1.96	54.92	29.02	2006	Jan	7.48	39.92	19.02	5.64	49.92	29.02
	Feb	2.98	39.20	17.96	1.96	54.20	27.96		Feb	7.48	39.20	17.96	5.64	49.20	27.96
	Mar	2.98	38.87	19.13	1.96	53.87	29.13		Mar	7.48	38.87	19.13	5.64	48.87	29.13
	Apr	2.98	38.97	21.80	1.96	53.97	31.80		Apr	7.48	38.97	21.80	5.64	48.97	31.80
	May	2.98	38.41	24.66	1.96	53.41	34.66		May	7.48	38.41	24.66	5.64	48.41	34.66
	Jun	2.98	38.85	27.80	1.96	53.85	37.80		Jun	7.48	38.85	27.80	5.64	48.85	37.80
	Jul	2.98	39.35	29.47	1.96	54.35	39.47		Jul	7.48	39.35	29.47	5.64	49.35	39.47
	Aug	2.98	39.68	30.09	1.96	54.68	40.09		Aug	7.48	39.68	30.09	5.64	49.68	40.09
	Sep	2.98	39.92	29.39	1.96	54.92	39.39		Sep	7.48	39.92	29.39	5.64	49.92	39.39
	Oct	2.98	39.58	28.33	1.96	54.58	38.33		Oct	7.48	39.58	28.33	5.64	49.58	38.33
	Nov	2.98	39.27	25.67	1.96	54.27	35.67		Nov	7.48	39.27	25.67	5.64	49.27	35.67
	Dec	2.98	39.34	22.03	1.96	54.34	32.03		Dec	7.48	39.34	22.03	5.64	49.34	32.03
2007	Jan	3.17	39.80	18.87	2.09	54.80	28.87	2007	Jan	7.52	39.80	18.87	5.66	49.80	28.87
	Feb	3.17	39.24	17.93	2.09	54.24	27.93		Feb	7.52	39.24	17.93	5.66	49.24	27.93
	Mar	3.17	39.04	19.03	2.09	54.04	29.03		Mar	7.52	39.04	19.03	5.66	49.04	29.03
	Apr	3.17	38.59	21.44	2.09	53.59	31.44		Apr	7.52	38.59	21.44	5.66	48.59	31.44
	May	3.17	38.82	25.23	2.09	53.82	35.23		May	7.52	38.82	25.23	5.66	48.82	35.23
	Jun	3.17	38.89	27.70	2.09	53.89	37.70		Jun	7.52	38.89	27.70	5.66	48.89	37.70
	Jul	3.17	39.26	29.65	2.09	54.26	39.65		Jul	7.52	39.26	29.65	5.66	49.26	39.65
	Aug	3.17	39.84	29.96	2.09	54.84	39.96		Aug	7.52	39.84	29.96	5.66	49.84	39.96
	Sep	3.17	39.11	29.16	2.09	54.11	39.16		Sep	7.52	39.11	29.16	5.66	49.11	39.16
	Oct	3.17	39.51	28.40	2.09	54.51	38.40		Oct	7.52	39.51	28.40	5.66	49.51	38.40
	Nov	3.17	39.52	25.63	2.09	54.52	35.63		Nov	7.52	39.52	25.63	5.66	49.52	35.63
	Dec	3.17	39.50	21.91	2.09	54.50	31.91		Dec	7.52	39.50	21.91	5.66	49.50	31.91
2008	Jan	3.35	39.88	18.76	2.21	54.88	28.76	2008	Jan	7.55	39.88	18.76	5.69	49.88	28.76
	Feb	3.35	39.75	17.69	2.21	54.75	27.69		Feb	7.55	39.75	17.69	5.69	49.75	27.69
	Mar	3.35	39.23	18.91	2.21	54.23	28.91		Mar	7.55	39.23	18.91	5.69	49.23	28.91
	Apr	3.35	38.94	22.37	2.21	53.94	32.37		Apr	7.55	38.94	22.37	5.69	48.94	32.37

	May	3.35	38.69	25.14	2.21	53.69	35.14		May	7.55	38.69	25.14	5.69	48.69	35.14
	Jun	3.35	38.85	27.66	2.21	53.85	37.66		Jun	7.55	38.85	27.66	5.69	48.85	37.66
	Jul	3.35	38.98	29.49	2.21	53.98	39.49		Jul	7.55	38.98	29.49	5.69	48.98	39.49
	Aug	3.35	39.75	30.34	2.21	54.75	40.34		Aug	7.55	39.75	30.34	5.69	49.75	40.34
	Sep	3.35	39.34	29.34	2.21	54.34	39.34		Sep	7.55	39.34	29.34	5.69	49.34	39.34
	Oct	3.35	39.58	28.20	2.21	54.58	38.20		Oct	7.55	39.58	28.20	5.69	49.58	38.20
	Nov	3.35	39.51	25.64	2.21	54.51	35.64		Nov	7.55	39.51	25.64	5.69	49.51	35.64
2009	Dec	3.35	39.20	22.56	2.21	54.20	32.56	2009	Dec	7.55	39.20	22.56	5.69	49.20	32.56
	Jan	3.54	39.08	19.58	2.33	54.08	29.58		Jan	7.59	39.08	19.58	5.72	49.08	29.58
	Feb	3.54	38.65	18.81	2.33	53.65	28.81		Feb	7.59	38.65	18.81	5.72	48.65	28.81
	Mar	3.54	39.01	19.35	2.33	54.01	29.35		Mar	7.59	39.01	19.35	5.72	49.01	29.35
	Apr	3.54	38.93	21.44	2.33	53.93	31.44		Apr	7.59	38.93	21.44	5.72	48.93	31.44
	May	3.54	39.18	24.98	2.33	54.18	34.98		May	7.59	39.18	24.98	5.72	49.18	34.98
	Jun	3.54	39.10	27.67	2.33	54.10	37.67		Jun	7.59	39.10	27.67	5.72	49.10	37.67
	Jul	3.54	39.15	29.61	2.33	54.15	39.61		Jul	7.59	39.15	29.61	5.72	49.15	39.61
	Aug	3.54	40.22	30.54	2.33	55.22	40.54		Aug	7.59	40.22	30.54	5.72	50.22	40.54
	Sep	3.54	39.54	29.39	2.33	54.54	39.39		Sep	7.59	39.54	29.39	5.72	49.54	39.39
	Oct	3.54	40.05	28.13	2.33	55.05	38.13		Oct	7.59	40.05	28.13	5.72	50.05	38.13
	Nov	3.54	38.79	25.53	2.33	53.79	35.53		Nov	7.59	38.79	25.53	5.72	48.79	35.53
2010	Dec	3.54	38.89	22.78	2.33	53.89	32.78	2010	Dec	7.59	38.89	22.78	5.72	48.89	32.78
	Jan	3.73	39.44	19.29	2.45	54.44	29.29		Jan	7.63	39.44	19.29	5.75	49.44	29.29
	Feb	3.73	39.10	18.42	2.45	54.10	28.42		Feb	7.63	39.10	18.42	5.75	49.10	28.42
	Mar	3.73	39.29	19.27	2.45	54.29	29.27		Mar	7.63	39.29	19.27	5.75	49.29	29.27
	Apr	3.73	38.88	22.02	2.45	53.88	32.02		Apr	7.63	38.88	22.02	5.75	48.88	32.02
	May	3.73	38.64	25.25	2.45	53.64	35.25		May	7.63	38.64	25.25	5.75	48.64	35.25
	Jun	3.73	38.80	27.64	2.45	53.80	37.64		Jun	7.63	38.80	27.64	5.75	48.80	37.64
	Jul	3.73	39.10	29.38	2.45	54.10	39.38		Jul	7.63	39.10	29.38	5.75	49.10	39.38
	Aug	3.73	39.50	30.12	2.45	54.50	40.12		Aug	7.63	39.50	30.12	5.75	49.50	40.12
	Sep	3.73	39.23	29.20	2.45	54.23	39.20		Sep	7.63	39.23	29.20	5.75	49.23	39.20
	Oct	3.73	39.37	28.20	2.45	54.37	38.20		Oct	7.63	39.37	28.20	5.75	49.37	38.20
	Nov	3.73	39.65	25.75	2.45	54.65	35.75		Nov	7.63	39.65	25.75	5.75	49.65	35.75
2011	Dec	3.73	39.10	23.05	2.45	54.10	33.05	2011	Dec	7.63	39.10	23.05	5.75	49.10	33.05
	Jan	3.91	39.73	19.34	2.58	54.73	29.34		Jan	7.66	39.73	19.34	5.77	49.73	29.34
	Feb	3.91	39.31	18.45	2.58	54.31	28.45		Feb	7.66	39.31	18.45	5.77	49.31	28.45
	Mar	3.91	39.08	18.94	2.58	54.08	28.94		Mar	7.66	39.08	18.94	5.77	49.08	28.94
	Apr	3.91	39.11	21.80	2.58	54.11	31.80		Apr	7.66	39.11	21.80	5.77	49.11	31.80
	May	3.91	39.16	25.32	2.58	54.16	35.32		May	7.66	39.16	25.32	5.77	49.16	35.32
	Jun	3.91	39.05	27.85	2.58	54.05	37.85		Jun	7.66	39.05	27.85	5.77	49.05	37.85
	Jul	3.91	38.92	29.18	2.58	53.92	39.18		Jul	7.66	38.92	29.18	5.77	48.92	39.18
	Aug	3.91	39.50	30.15	2.58	54.50	40.15		Aug	7.66	39.50	30.15	5.77	49.50	40.15
	Sep	3.91	39.16	29.47	2.58	54.16	39.47		Sep	7.66	39.16	29.47	5.77	49.16	39.47
	Oct	3.91	39.47	28.42	2.58	54.47	38.42		Oct	7.66	39.47	28.42	5.77	49.47	38.42
	Nov	3.91	39.52	25.80	2.58	54.52	35.80		Nov	7.66	39.52	25.80	5.77	49.52	35.80
2012	Dec	3.91	39.69	22.56	2.58	54.69	32.56	2012	Dec	7.66	39.69	22.56	5.77	49.69	32.56
	Jan	4.10	39.69	18.86	2.70	54.69	28.86		Jan	7.70	39.69	18.86	5.80	49.69	28.86
	Feb	4.10	39.22	17.85	2.70	54.22	27.85		Feb	7.70	39.22	17.85	5.80	49.22	27.85
	Mar	4.10	39.34	18.91	2.70	54.34	28.91		Mar	7.70	39.34	18.91	5.80	49.34	28.91
	Apr	4.10	39.30	21.59	2.70	54.30	31.59		Apr	7.70	39.30	21.59	5.80	49.30	31.59
	May	4.10	39.00	25.58	2.70	54.00	35.58		May	7.70	39.00	25.58	5.80	49.00	35.58
	Jun	4.10	39.02	27.83	2.70	54.02	37.83		Jun	7.70	39.02	27.83	5.80	49.02	37.83
	Jul	4.10	39.25	29.84	2.70	54.25	39.84		Jul	7.70	39.25	29.84	5.80	49.25	39.84
	Aug	4.10	39.26	30.17	2.70	54.26	40.17		Aug	7.70	39.26	30.17	5.80	49.26	40.17
	Sep	4.10	39.54	29.70	2.70	54.54	39.70		Sep	7.70	39.54	29.70	5.80	49.54	39.70
	Oct	4.10	39.53	28.47	2.70	54.53	38.47		Oct	7.70	39.53	28.47	5.80	49.53	38.47
	Nov	4.10	39.16	26.07	2.70	54.16	36.07		Nov	7.70	39.16	26.07	5.80	49.16	36.07
2013	Dec	4.10	39.51	22.76	2.70	54.51	32.76	2013	Dec	7.70	39.51	22.76	5.80	49.51	32.76
	Jan	4.29	39.14	19.65	2.82	54.14	29.65		Jan	7.74	39.14	19.65	5.83	49.14	29.65
	Feb	4.29	39.45	18.07	2.82	54.45	28.07		Feb	7.74	39.45	18.07	5.83	49.45	28.07
	Mar	4.29	38.88	19.41	2.82	53.88	29.41		Mar	7.74	38.88	19.41	5.83	48.88	29.41
	Apr	4.29	38.86	22.40	2.82	53.86	32.40		Apr	7.74	38.86	22.40	5.83	48.86	32.40
	May	4.29	38.58	24.89	2.82	53.58	34.89		May	7.74	38.58	24.89	5.83	48.58	34.89
	Jun	4.29	38.89	27.81	2.82	53.89	37.81		Jun	7.74	38.89	27.81	5.83	48.89	37.81
	Jul	4.29	39.35	29.75	2.82	54.35	39.75		Jul	7.74	39.35	29.75	5.83	49.35	39.75
	Aug	4.29	40.05	29.76	2.82	55.05	39.76		Aug	7.74	40.05	29.76	5.83	50.05	39.76

	Sep	4.29	39.79	29.37	2.82	54.79	39.37		Sep	7.74	39.79	29.37	5.83	49.79	39.37
	Oct	4.29	39.69	28.15	2.82	54.69	38.15		Oct	7.74	39.69	28.15	5.83	49.69	38.15
	Nov	4.29	39.21	25.68	2.82	54.21	35.68		Nov	7.74	39.21	25.68	5.83	49.21	35.68
	Dec	4.29	39.01	22.82	2.82	54.01	32.82		Dec	7.74	39.01	22.82	5.83	49.01	32.82
2014	Jan	4.47	39.66	18.80	2.95	54.66	28.80	2014	Jan	7.77	39.66	18.80	5.85	49.66	28.80
	Feb	4.47	39.37	18.36	2.95	54.37	28.36		Feb	7.77	39.37	18.36	5.85	49.37	28.36
	Mar	4.47	39.18	19.30	2.95	54.18	29.30		Mar	7.77	39.18	19.30	5.85	49.18	29.30
	Apr	4.47	38.95	22.05	2.95	53.95	32.05		Apr	7.77	38.95	22.05	5.85	48.95	32.05
	May	4.47	38.97	25.49	2.95	53.97	35.49		May	7.77	38.97	25.49	5.85	48.97	35.49
	Jun	4.47	38.48	27.28	2.95	53.48	37.28		Jun	7.77	38.48	27.28	5.85	48.48	37.28
	Jul	4.47	38.94	29.75	2.95	53.94	39.75		Jul	7.77	38.94	29.75	5.85	48.94	39.75
	Aug	4.47	39.39	30.18	2.95	54.39	40.18		Aug	7.77	39.39	30.18	5.85	49.39	40.18
	Sep	4.47	39.28	29.48	2.95	54.28	39.48		Sep	7.77	39.28	29.48	5.85	49.28	39.48
	Oct	4.47	39.51	28.39	2.95	54.51	38.39		Oct	7.77	39.51	28.39	5.85	49.51	38.39
	Nov	4.47	39.19	25.59	2.95	54.19	35.59		Nov	7.77	39.19	25.59	5.85	49.19	35.59
	Dec	4.47	39.82	21.88	2.95	54.82	31.88		Dec	7.77	39.82	21.88	5.85	49.82	31.88
2015	Jan	4.66	39.65	19.05	3.07	54.65	29.05	2015	Jan	7.81	39.65	19.05	5.88	49.65	29.05
	Feb	4.66	39.28	18.30	3.07	54.28	28.30		Feb	7.81	39.28	18.30	5.88	49.28	28.30
	Mar	4.66	39.18	19.30	3.07	54.18	29.30		Mar	7.81	39.18	19.30	5.88	49.18	29.30
	Apr	4.66	39.00	21.88	3.07	54.00	31.88		Apr	7.81	39.00	21.88	5.88	49.00	31.88
	May	4.66	38.97	25.46	3.07	53.97	35.46		May	7.81	38.97	25.46	5.88	48.97	35.46
	Jun	4.66	39.62	27.87	3.07	54.62	37.87		Jun	7.81	39.62	27.87	5.88	49.62	37.87
	Jul	4.66	39.23	29.27	3.07	54.23	39.27		Jul	7.81	39.23	29.27	5.88	49.23	39.27
	Aug	4.66	39.78	30.37	3.07	54.78	40.37		Aug	7.81	39.78	30.37	5.88	49.78	40.37
	Sep	4.66	39.60	29.62	3.07	54.60	39.62		Sep	7.81	39.60	29.62	5.88	49.60	39.62
	Oct	4.66	39.74	28.68	3.07	54.74	38.68		Oct	7.81	39.74	28.68	5.88	49.74	38.68
	Nov	4.66	39.32	25.67	3.07	54.32	35.67		Nov	7.81	39.32	25.67	5.88	49.32	35.67
	Dec	4.66	39.20	22.42	3.07	54.20	32.42		Dec	7.81	39.20	22.42	5.88	49.20	32.42

UAE (Layyah) RO		Inflow			Outflow			UAE (Mirfa) MSF		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	8.02	39.29	18.88	4.01	84.09	19.88	2004	Jan	5.28	42.44	17.84	3.95	52.44	27.84
	Feb	8.02	39.30	17.88	4.01	84.10	18.88		Feb	5.28	42.11	17.21	3.95	52.11	27.21
	Mar	8.02	39.16	19.06	4.01	83.96	20.06		Mar	5.28	42.01	19.04	3.95	52.01	29.04
	Apr	8.02	38.94	21.99	4.01	83.74	22.99		Apr	5.28	41.02	22.76	3.95	51.02	32.76
	May	8.02	38.69	25.19	4.01	83.49	26.19		May	5.28	40.61	25.42	3.95	50.61	35.42
	Jun	8.02	38.72	27.56	4.01	83.52	28.56		Jun	5.28	40.54	27.76	3.95	50.54	37.76
	Jul	8.02	39.24	29.57	4.01	84.04	30.57		Jul	5.28	40.79	29.82	3.95	50.79	39.82
	Aug	8.02	39.07	29.91	4.01	83.87	30.91		Aug	5.28	40.85	29.96	3.95	50.85	39.96
	Sep	8.02	39.45	29.53	4.01	84.25	30.53		Sep	5.28	41.26	29.45	3.95	51.26	39.45
	Oct	8.02	39.58	28.26	4.01	84.38	29.26		Oct	5.28	41.41	27.93	3.95	51.41	37.93
	Nov	8.02	39.43	25.83	4.01	84.23	26.83		Nov	5.28	41.72	25.45	3.95	51.72	35.45
	Dec	8.02	39.90	22.11	4.01	84.70	23.11		Dec	5.28	41.91	21.21	3.95	51.91	31.21
2005	Jan	8.59	39.99	18.49	4.30	84.79	19.49	2005	Jan	5.66	42.22	17.04	4.23	52.22	27.04
	Feb	8.59	39.24	17.99	4.30	84.04	18.99		Feb	5.66	41.68	17.07	4.23	51.68	27.07
	Mar	8.59	38.95	19.12	4.30	83.75	20.12		Mar	5.66	41.39	18.73	4.23	51.39	28.73
	Apr	8.59	39.04	22.24	4.30	83.84	23.24		Apr	5.66	41.33	22.02	4.23	51.33	32.02
	May	8.59	38.36	24.67	4.30	83.16	25.67		May	5.66	41.33	25.42	4.23	51.33	35.42
	Jun	8.59	38.79	27.55	4.30	83.59	28.55		Jun	5.66	41.40	27.88	4.23	51.40	37.88
	Jul	8.59	39.40	29.35	4.30	84.20	30.35		Jul	5.66	41.62	29.21	4.23	51.62	39.21
	Aug	8.59	39.71	30.11	4.30	84.51	31.11		Aug	5.66	41.65	30.03	4.23	51.65	40.03
	Sep	8.59	39.91	29.64	4.30	84.71	30.64		Sep	5.66	41.98	29.30	4.23	51.98	39.30
	Oct	8.59	39.71	28.39	4.30	84.51	29.39		Oct	5.66	42.28	27.79	4.23	52.28	37.79
	Nov	8.59	38.98	25.62	4.30	83.78	26.62		Nov	5.66	42.33	24.76	4.23	52.33	34.76
	Dec	8.59	39.47	21.97	4.30	84.27	22.97		Dec	5.66	42.42	20.60	4.23	52.42	30.60
2006	Jan	9.16	39.92	19.02	4.58	84.72	20.02	2006	Jan	6.04	42.13	17.86	4.51	52.13	27.86
	Feb	9.16	39.20	17.96	4.58	84.00	18.96		Feb	6.04	41.97	17.09	4.51	51.97	27.09
	Mar	9.16	38.87	19.13	4.58	83.67	20.13		Mar	6.04	41.84	19.09	4.51	51.84	29.09
	Apr	9.16	38.97	21.80	4.58	83.77	22.80		Apr	6.04	41.49	22.05	4.51	51.49	32.05
	May	9.16	38.41	24.66	4.58	83.21	25.66		May	6.04	41.32	25.67	4.51	51.32	35.67
	Jun	9.16	38.85	27.80	4.58	83.65	28.80		Jun	6.04	41.36	27.91	4.51	51.36	37.91

	Jul	9.16	39.35	29.47	4.58	84.15	30.47		Jul	6.04	41.61	29.55	4.51	51.61	39.55
	Aug	9.16	39.68	30.09	4.58	84.48	31.09		Aug	6.04	41.79	29.98	4.51	51.79	39.98
	Sep	9.16	39.92	29.39	4.58	84.72	30.39		Sep	6.04	41.90	29.32	4.51	51.90	39.32
	Oct	9.16	39.58	28.33	4.58	84.38	29.33		Oct	6.04	42.13	27.80	4.51	52.13	37.80
	Nov	9.16	39.27	25.67	4.58	84.07	26.67		Nov	6.04	42.34	25.09	4.51	52.34	35.09
2007	Dec	9.16	39.34	22.03	4.58	84.14	23.03	2007	Dec	6.04	42.39	21.25	4.51	52.39	31.25
	Jan	9.74	39.80	18.87	4.87	84.60	19.87		Jan	6.41	42.40	17.26	4.79	52.40	27.26
	Feb	9.74	39.24	17.93	4.87	84.04	18.93		Feb	6.41	41.43	16.86	4.79	51.43	26.86
	Mar	9.74	39.04	19.03	4.87	83.84	20.03		Mar	6.41	40.91	18.91	4.79	50.91	28.91
	Apr	9.74	38.59	21.44	4.87	83.39	22.44		Apr	6.41	40.73	21.95	4.79	50.73	31.95
	May	9.74	38.82	25.23	4.87	83.62	26.23		May	6.41	40.75	25.64	4.79	50.75	35.64
	Jun	9.74	38.89	27.70	4.87	83.69	28.70		Jun	6.41	40.80	27.97	4.79	50.80	37.97
	Jul	9.74	39.26	29.65	4.87	84.06	30.65		Jul	6.41	41.08	29.73	4.79	51.08	39.73
	Aug	9.74	39.84	29.96	4.87	84.64	30.96		Aug	6.41	41.36	29.75	4.79	51.36	39.75
	Sep	9.74	39.11	29.16	4.87	83.91	30.16		Sep	6.41	41.70	29.38	4.79	51.70	39.38
	Oct	9.74	39.51	28.40	4.87	84.31	29.40		Oct	6.41	42.10	28.09	4.79	52.10	38.09
	Nov	9.74	39.52	25.63	4.87	84.32	26.63		Nov	6.41	42.24	25.01	4.79	52.24	35.01
2008	Dec	9.74	39.50	21.91	4.87	84.30	22.91	2008	Dec	6.41	42.48	20.98	4.79	52.48	30.98
	Jan	10.31	39.88	18.76	5.15	84.68	19.76		Jan	6.79	42.22	17.91	5.07	52.22	27.91
	Feb	10.31	39.75	17.69	5.15	84.55	18.69		Feb	6.79	41.67	17.12	5.07	51.67	27.12
	Mar	10.31	39.23	18.91	5.15	84.03	19.91		Mar	6.79	41.05	18.81	5.07	51.05	28.81
	Apr	10.31	38.94	22.37	5.15	83.74	23.37		Apr	6.79	40.50	22.66	5.07	50.50	32.66
	May	10.31	38.69	25.14	5.15	83.49	26.14		May	6.79	40.47	26.03	5.07	50.47	36.03
	Jun	10.31	38.85	27.66	5.15	83.65	28.66		Jun	6.79	40.48	28.06	5.07	50.48	38.06
	Jul	10.31	38.98	29.49	5.15	83.78	30.49		Jul	6.79	40.75	29.59	5.07	50.75	39.59
	Aug	10.31	39.75	30.34	5.15	84.55	31.34		Aug	6.79	41.32	29.86	5.07	51.32	39.86
	Sep	10.31	39.34	29.34	5.15	84.14	30.34		Sep	6.79	41.46	29.24	5.07	51.46	39.24
	Oct	10.31	39.58	28.20	5.15	84.38	29.20		Oct	6.79	41.50	27.63	5.07	51.50	37.63
	Nov	10.31	39.51	25.64	5.15	84.31	26.64		Nov	6.79	41.83	24.84	5.07	51.83	34.84
2009	Dec	10.31	39.20	22.56	5.15	84.00	23.56	2009	Dec	6.79	42.13	20.62	5.07	52.13	30.62
	Jan	10.88	39.08	19.58	5.44	83.88	20.58		Jan	7.17	41.65	18.17	5.35	51.65	28.17
	Feb	10.88	38.65	18.81	5.44	83.45	19.81		Feb	7.17	41.11	17.55	5.35	51.11	27.55
	Mar	10.88	39.01	19.35	5.44	83.81	20.35		Mar	7.17	40.71	19.16	5.35	50.71	29.16
	Apr	10.88	38.93	21.44	5.44	83.73	22.44		Apr	7.17	40.55	21.96	5.35	50.55	31.96
	May	10.88	39.18	24.98	5.44	83.98	25.98		May	7.17	40.57	25.66	5.35	50.57	35.66
	Jun	10.88	39.10	27.67	5.44	83.90	28.67		Jun	7.17	40.66	27.87	5.35	50.66	37.87
	Jul	10.88	39.15	29.61	5.44	83.95	30.61		Jul	7.17	40.85	29.65	5.35	50.85	39.65
	Aug	10.88	40.22	30.54	5.44	85.02	31.54		Aug	7.17	41.36	29.45	5.35	51.36	39.45
	Sep	10.88	39.54	29.39	5.44	84.34	30.39		Sep	7.17	41.56	29.01	5.35	51.56	39.01
	Oct	10.88	40.05	28.13	5.44	84.85	29.13		Oct	7.17	41.57	27.34	5.35	51.57	37.34
	Nov	10.88	38.79	25.53	5.44	83.59	26.53		Nov	7.17	41.56	24.97	5.35	51.56	34.97
2010	Dec	10.88	38.89	22.78	5.44	83.69	23.78	2010	Dec	7.17	41.55	21.29	5.35	51.55	31.09
	Jan	11.45	39.44	19.29	5.73	84.24	20.29		Jan	7.55	41.78	18.12	5.64	51.78	28.12
	Feb	11.45	39.10	18.42	5.73	83.90	19.42		Feb	7.55	41.94	17.46	5.64	51.94	27.46
	Mar	11.45	39.29	19.27	5.73	84.09	20.27		Mar	7.55	41.45	19.27	5.64	51.45	29.27
	Apr	11.45	38.88	22.02	5.73	83.68	23.02		Apr	7.55	41.28	22.24	5.64	51.28	32.24
	May	11.45	38.64	25.25	5.73	83.44	26.25		May	7.55	41.31	25.60	5.64	51.31	35.60
	Jun	11.45	38.80	27.64	5.73	83.60	28.64		Jun	7.55	41.34	28.10	5.64	51.34	38.10
	Jul	11.45	39.10	29.38	5.73	83.90	30.38		Jul	7.55	41.41	29.40	5.64	51.41	39.40
	Aug	11.45	39.50	30.12	5.73	84.30	31.12		Aug	7.55	41.68	29.84	5.64	51.68	39.84
	Sep	11.45	39.23	29.20	5.73	84.03	30.20		Sep	7.55	41.80	29.12	5.64	51.80	39.12
	Oct	11.45	39.37	28.20	5.73	84.17	29.20		Oct	7.55	42.05	27.97	5.64	52.05	37.97
	Nov	11.45	39.65	25.75	5.73	84.45	26.75		Nov	7.55	42.27	25.17	5.64	52.27	35.17
2011	Dec	11.45	39.10	23.05	5.73	83.90	24.05	2011	Dec	7.55	42.44	21.06	5.64	52.44	31.06
	Jan	12.03	39.73	19.34	6.01	84.53	20.34		Jan	7.92	41.80	17.70	5.92	51.80	27.70
	Feb	12.03	39.31	18.45	6.01	84.11	19.45		Feb	7.92	41.09	17.11	5.92	51.09	27.11
	Mar	12.03	39.08	18.94	6.01	83.88	19.94		Mar	7.92	40.66	18.99	5.92	50.66	28.99
	Apr	12.03	39.11	21.80	6.01	83.91	22.80		Apr	7.92	40.67	22.09	5.92	50.67	32.09
	May	12.03	39.16	25.32	6.01	83.96	26.32		May	7.92	40.56	25.51	5.92	50.56	35.51
	Jun	12.03	39.05	27.85	6.01	83.85	28.85		Jun	7.92	40.56	27.64	5.92	50.56	37.64
	Jul	12.03	38.92	29.18	6.01	83.72	30.18		Jul	7.92	40.78	29.47	5.92	50.78	39.47
	Aug	12.03	39.50	30.15	6.01	84.30	31.15		Aug	7.92	41.13	29.75	5.92	51.13	39.75
	Sep	12.03	39.16	29.47	6.01	83.96	30.47		Sep	7.92	41.51	29.33	5.92	51.51	39.33
	Oct	12.03	39.47	28.42	6.01	84.27	29.42		Oct	7.92	41.58	27.90	5.92	51.58	37.90

	Nov	12.03	39.52	25.80	6.01	84.32	26.80		Nov	7.92	41.71	24.44	5.92	51.71	34.44
	Dec	12.03	39.69	22.56	6.01	84.49	23.56		Dec	7.92	41.84	20.51	5.92	51.84	30.51
2012	Jan	12.60	39.69	18.86	6.30	84.49	19.86	2012	Jan	8.30	41.40	17.36	6.20	51.40	27.36
	Feb	12.60	39.22	17.85	6.30	84.02	18.85		Feb	8.30	40.83	17.17	6.20	50.83	27.17
	Mar	12.60	39.34	18.91	6.30	84.14	19.91		Mar	8.30	40.54	18.83	6.20	50.54	28.83
	Apr	12.60	39.30	21.59	6.30	84.10	22.59		Apr	8.30	40.15	21.91	6.20	50.15	31.91
	May	12.60	39.00	25.58	6.30	83.80	26.58		May	8.30	40.14	25.17	6.20	50.14	35.17
	Jun	12.60	39.02	27.83	6.30	83.82	28.83		Jun	8.30	40.26	27.47	6.20	50.26	37.47
	Jul	12.60	39.25	29.84	6.30	84.05	30.84		Jul	8.30	40.45	29.48	6.20	50.45	39.48
	Aug	12.60	39.26	30.17	6.30	84.06	31.17		Aug	8.30	40.77	29.81	6.20	50.77	39.81
	Sep	12.60	39.54	29.70	6.30	84.34	30.70		Sep	8.30	41.19	29.11	6.20	51.19	39.11
	Oct	12.60	39.53	28.47	6.30	84.33	29.47		Oct	8.30	41.56	27.67	6.20	51.56	37.67
	Nov	12.60	39.16	26.07	6.30	83.96	27.07		Nov	8.30	41.55	25.02	6.20	51.55	35.02
	Dec	12.60	39.51	22.76	6.30	84.31	23.76		Dec	8.30	41.84	20.87	6.20	51.84	30.87
2013	Jan	13.17	39.14	19.65	6.59	83.94	20.65	2013	Jan	8.68	41.99	17.96	6.48	51.99	27.96
	Feb	13.17	39.45	18.07	6.59	84.25	19.07		Feb	8.68	41.36	17.20	6.48	51.36	27.20
	Mar	13.17	38.88	19.41	6.59	83.68	20.41		Mar	8.68	41.32	19.10	6.48	51.32	29.10
	Apr	13.17	38.86	22.40	6.59	83.66	23.40		Apr	8.68	40.87	22.59	6.48	50.87	32.59
	May	13.17	38.58	24.89	6.59	83.38	25.89		May	8.68	40.84	25.41	6.48	50.84	35.41
	Jun	13.17	38.89	27.81	6.59	83.69	28.81		Jun	8.68	40.95	27.67	6.48	50.95	37.67
	Jul	13.17	39.35	29.75	6.59	84.15	30.75		Jul	8.68	41.24	29.86	6.48	51.24	39.86
	Aug	13.17	40.05	29.76	6.59	84.85	30.76		Aug	8.68	41.25	29.58	6.48	51.25	39.58
	Sep	13.17	39.79	29.37	6.59	84.59	30.37		Sep	8.68	41.19	28.87	6.48	51.19	38.87
	Oct	13.17	39.69	28.15	6.59	84.49	29.15		Oct	8.68	41.35	27.45	6.48	51.35	37.45
	Nov	13.17	39.21	25.68	6.59	84.01	26.68		Nov	8.68	41.54	24.66	6.48	51.54	34.66
	Dec	13.17	39.01	22.82	6.59	83.81	23.82		Dec	8.68	41.83	21.05	6.48	51.83	31.05
2014	Jan	13.75	39.66	18.80	6.87	84.46	19.80	2014	Jan	9.05	41.79	17.64	6.76	51.79	27.64
	Feb	13.75	39.37	18.36	6.87	84.17	19.36		Feb	9.05	41.38	17.36	6.76	51.38	27.36
	Mar	13.75	39.18	19.30	6.87	83.98	20.30		Mar	9.05	40.97	19.10	6.76	50.97	29.10
	Apr	13.75	38.95	22.05	6.87	83.75	23.05		Apr	9.05	40.85	22.29	6.76	50.85	32.29
	May	13.75	38.97	25.49	6.87	83.77	26.49		May	9.05	40.88	25.31	6.76	50.88	35.31
	Jun	13.75	38.48	27.28	6.87	83.28	28.28		Jun	9.05	40.96	27.79	6.76	50.96	37.79
	Jul	13.75	38.94	29.75	6.87	83.74	30.75		Jul	9.05	41.24	29.64	6.76	51.24	39.64
	Aug	13.75	39.39	30.18	6.87	84.19	31.18		Aug	9.05	41.67	29.80	6.76	51.67	39.80
	Sep	13.75	39.28	29.48	6.87	84.08	30.48		Sep	9.05	42.02	29.09	6.76	52.02	39.09
	Oct	13.75	39.51	28.39	6.87	84.31	29.39		Oct	9.05	42.28	27.90	6.76	52.28	37.90
	Nov	13.75	39.19	25.59	6.87	83.99	26.59		Nov	9.05	42.23	24.64	6.76	52.23	34.64
	Dec	13.75	39.82	21.88	6.87	84.62	22.88		Dec	9.05	42.36	20.55	6.76	52.36	30.55
2015	Jan	14.32	39.65	19.05	7.16	84.45	20.05	2015	Jan	9.43	41.98	17.54	7.05	51.98	27.54
	Feb	14.32	39.28	18.30	7.16	84.08	19.30		Feb	9.43	41.11	17.34	7.05	51.11	27.34
	Mar	14.32	39.18	19.30	7.16	83.98	20.30		Mar	9.43	40.97	19.10	7.05	50.97	29.10
	Apr	14.32	39.00	21.88	7.16	83.80	22.88		Apr	9.43	41.02	22.16	7.05	51.02	32.16
	May	14.32	38.97	25.46	7.16	83.77	26.46		May	9.43	41.17	25.78	7.05	51.17	35.78
	Jun	14.32	39.62	27.87	7.16	84.42	28.87		Jun	9.43	41.21	27.95	7.05	51.21	37.95
	Jul	14.32	39.23	29.27	7.16	84.03	30.27		Jul	9.43	41.19	29.68	7.05	51.19	39.68
	Aug	14.32	39.78	30.37	7.16	84.58	31.37		Aug	9.43	41.29	29.96	7.05	51.29	39.96
	Sep	14.32	39.60	29.62	7.16	84.40	30.62		Sep	9.43	41.48	29.51	7.05	51.48	39.51
	Oct	14.32	39.74	28.68	7.16	84.54	29.68		Oct	9.43	41.65	28.07	7.05	51.65	38.07
	Nov	14.32	39.32	25.67	7.16	84.12	26.67		Nov	9.43	41.86	24.73	7.05	51.86	34.73
	Dec	14.32	39.20	22.42	7.16	84.00	23.42		Dec	9.43	42.09	20.63	7.05	52.09	30.63

UAE (Mirfa) MED		Inflow			Outflow			UAE (Mirfa) RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	0.70	42.44	17.84	0.45	57.44	27.84	2004	Jan	0.38	42.44	17.84	0.19	87.24	18.84
	Feb	0.70	42.11	17.21	0.45	57.11	27.21		Feb	0.38	42.11	17.21	0.19	86.91	18.21
	Mar	0.70	42.01	19.04	0.45	57.01	29.04		Mar	0.38	42.01	19.04	0.19	86.81	20.04
	Apr	0.70	41.02	22.76	0.45	56.02	32.76		Apr	0.38	41.02	22.76	0.19	85.82	23.76
	May	0.70	40.61	25.42	0.45	55.61	35.42		May	0.38	40.61	25.42	0.19	85.41	26.42
	Jun	0.70	40.54	27.76	0.45	55.54	37.76		Jun	0.38	40.54	27.76	0.19	85.34	28.76
	Jul	0.70	40.79	29.82	0.45	55.79	39.82		Jul	0.38	40.79	29.82	0.19	85.59	30.82
	Aug	0.70	40.85	29.96	0.45	55.85	39.96		Aug	0.38	40.85	29.96	0.19	85.65	30.96

	Sep	0.70	41.26	29.45	0.45	56.26	39.45		Sep	0.38	41.26	29.45	0.19	86.06	30.45
	Oct	0.70	41.41	27.93	0.45	56.41	37.93		Oct	0.38	41.41	27.93	0.19	86.21	28.93
	Nov	0.70	41.72	25.45	0.45	56.72	35.45		Nov	0.38	41.72	25.45	0.19	86.52	26.45
	Dec	0.70	41.91	21.21	0.45	56.91	31.21		Dec	0.38	41.91	21.21	0.19	86.71	22.21
2005	Jan	0.75	42.22	17.04	0.48	57.22	27.04	2005	Jan	0.14	42.22	17.04	0.07	87.02	18.04
	Feb	0.75	41.68	17.07	0.48	56.68	27.07		Feb	0.14	41.68	17.07	0.07	86.48	18.07
	Mar	0.75	41.39	18.73	0.48	56.39	28.73		Mar	0.14	41.39	18.73	0.07	86.19	19.73
	Apr	0.75	41.33	22.02	0.48	56.33	32.02		Apr	0.14	41.33	22.02	0.07	86.13	23.02
	May	0.75	41.33	25.42	0.48	56.33	35.42		May	0.14	41.33	25.42	0.07	86.13	26.42
	Jun	0.75	41.40	27.88	0.48	56.40	37.88		Jun	0.14	41.40	27.88	0.07	86.20	28.88
	Jul	0.75	41.62	29.21	0.48	56.62	39.21		Jul	0.14	41.62	29.21	0.07	86.42	30.21
	Aug	0.75	41.65	30.03	0.48	56.65	40.03		Aug	0.14	41.65	30.03	0.07	86.45	31.03
	Sep	0.75	41.98	29.30	0.48	56.98	39.30		Sep	0.14	41.98	29.30	0.07	86.78	30.30
	Oct	0.75	42.28	27.79	0.48	57.28	37.79		Oct	0.14	42.28	27.79	0.07	87.08	28.79
	Nov	0.75	42.33	24.76	0.48	57.33	34.76		Nov	0.14	42.33	24.76	0.07	87.13	25.76
	Dec	0.75	42.42	20.60	0.48	57.42	30.60		Dec	0.14	42.42	20.60	0.07	87.22	21.60
2006	Jan	0.80	42.13	17.86	0.51	57.13	27.86	2006	Jan	0.15	42.13	17.86	0.07	86.93	18.86
	Feb	0.80	41.97	17.09	0.51	56.97	27.09		Feb	0.15	41.97	17.09	0.07	86.77	18.09
	Mar	0.80	41.84	19.09	0.51	56.84	29.09		Mar	0.15	41.84	19.09	0.07	86.64	20.09
	Apr	0.80	41.49	22.05	0.51	56.49	32.05		Apr	0.15	41.49	22.05	0.07	86.29	23.05
	May	0.80	41.32	25.67	0.51	56.32	35.67		May	0.15	41.32	25.67	0.07	86.12	26.67
	Jun	0.80	41.36	27.91	0.51	56.36	37.91		Jun	0.15	41.36	27.91	0.07	86.16	28.91
	Jul	0.80	41.61	29.55	0.51	56.61	39.55		Jul	0.15	41.61	29.55	0.07	86.41	30.55
	Aug	0.80	41.79	29.98	0.51	56.79	39.98		Aug	0.15	41.79	29.98	0.07	86.59	30.98
	Sep	0.80	41.90	29.32	0.51	56.90	39.32		Sep	0.15	41.90	29.32	0.07	86.70	30.32
	Oct	0.80	42.13	27.80	0.51	57.13	37.80		Oct	0.15	42.13	27.80	0.07	86.93	28.80
	Nov	0.80	42.34	25.09	0.51	57.34	35.09		Nov	0.15	42.34	25.09	0.07	87.14	26.09
	Dec	0.80	42.39	21.25	0.51	57.39	31.25		Dec	0.15	42.39	21.25	0.07	87.19	22.25
2007	Jan	0.85	42.40	17.26	0.54	57.40	27.26	2007	Jan	0.15	42.40	17.26	0.08	87.20	18.26
	Feb	0.85	41.43	16.86	0.54	56.43	26.86		Feb	0.15	41.43	16.86	0.08	86.23	17.86
	Mar	0.85	40.91	18.91	0.54	55.91	28.91		Mar	0.15	40.91	18.91	0.08	85.71	19.91
	Apr	0.85	40.73	21.95	0.54	55.73	31.95		Apr	0.15	40.73	21.95	0.08	85.53	22.95
	May	0.85	40.75	25.64	0.54	55.75	35.64		May	0.15	40.75	25.64	0.08	85.55	26.64
	Jun	0.85	40.80	27.97	0.54	55.80	37.97		Jun	0.15	40.80	27.97	0.08	85.60	28.97
	Jul	0.85	41.08	29.73	0.54	56.08	39.73		Jul	0.15	41.08	29.73	0.08	85.88	30.73
	Aug	0.85	41.36	29.75	0.54	56.36	39.75		Aug	0.15	41.36	29.75	0.08	86.16	30.75
	Sep	0.85	41.70	29.38	0.54	56.70	39.38		Sep	0.15	41.70	29.38	0.08	86.50	30.38
	Oct	0.85	42.10	28.09	0.54	57.10	38.09		Oct	0.15	42.10	28.09	0.08	86.90	29.09
	Nov	0.85	42.24	25.01	0.54	57.24	35.01		Nov	0.15	42.24	25.01	0.08	87.04	26.01
	Dec	0.85	42.48	20.98	0.54	57.48	30.98		Dec	0.15	42.48	20.98	0.08	87.28	21.98
2008	Jan	0.90	42.22	17.91	0.57	57.22	27.91	2008	Jan	0.16	42.22	17.91	0.08	87.02	18.91
	Feb	0.90	41.67	17.12	0.57	56.67	27.12		Feb	0.16	41.67	17.12	0.08	86.47	18.12
	Mar	0.90	41.05	18.81	0.57	56.05	28.81		Mar	0.16	41.05	18.81	0.08	85.85	19.81
	Apr	0.90	40.50	22.66	0.57	55.50	32.66		Apr	0.16	40.50	22.66	0.08	85.30	23.66
	May	0.90	40.47	26.03	0.57	55.47	36.03		May	0.16	40.47	26.03	0.08	85.27	27.03
	Jun	0.90	40.48	28.06	0.57	55.48	38.06		Jun	0.16	40.48	28.06	0.08	85.28	29.06
	Jul	0.90	40.75	29.59	0.57	55.75	39.59		Jul	0.16	40.75	29.59	0.08	85.55	30.59
	Aug	0.90	41.32	29.86	0.57	56.32	39.86		Aug	0.16	41.32	29.86	0.08	86.12	30.86
	Sep	0.90	41.46	29.24	0.57	56.46	39.24		Sep	0.16	41.46	29.24	0.08	86.26	30.24
	Oct	0.90	41.50	27.63	0.57	56.50	37.63		Oct	0.16	41.50	27.63	0.08	86.30	28.63
	Nov	0.90	41.83	24.84	0.57	56.83	34.84		Nov	0.16	41.83	24.84	0.08	86.63	26.84
	Dec	0.90	42.13	20.62	0.57	57.13	30.62		Dec	0.16	42.13	20.62	0.08	86.93	21.62
2009	Jan	0.95	41.65	18.17	0.60	56.65	28.17	2009	Jan	0.17	41.65	18.17	0.09	86.45	19.17
	Feb	0.95	41.11	17.55	0.60	56.11	27.55		Feb	0.17	41.11	17.55	0.09	85.91	18.55
	Mar	0.95	40.71	19.16	0.60	55.71	29.16		Mar	0.17	40.71	19.16	0.09	85.51	20.16
	Apr	0.95	40.55	21.96	0.60	55.55	31.96		Apr	0.17	40.55	21.96	0.09	85.35	22.96
	May	0.95	40.57	25.66	0.60	55.57	35.66		May	0.17	40.57	25.66	0.09	85.37	26.66
	Jun	0.95	40.66	27.87	0.60	55.66	37.87		Jun	0.17	40.66	27.87	0.09	85.46	28.87
	Jul	0.95	40.85	29.65	0.60	55.85	39.65		Jul	0.17	40.85	29.65	0.09	85.65	30.65
	Aug	0.95	41.36	29.45	0.60	56.36	39.45		Aug	0.17	41.36	29.45	0.09	86.16	30.45
	Sep	0.95	41.56	29.01	0.60	56.56	39.01		Sep	0.17	41.56	29.01	0.09	86.36	30.01
	Oct	0.95	41.57	27.34	0.60	56.57	37.34		Oct	0.17	41.57	27.34	0.09	86.37	28.34
	Nov	0.95	41.56	24.97	0.60	56.56	34.97		Nov	0.17	41.56	24.97	0.09	86.36	25.97
	Dec	0.95	41.55	21.29	0.60	56.55	31.09		Dec	0.17	41.55	21.29	0.09	86.35	22.09

2010	Jan	1.00	41.78	18.12	0.64	56.78	28.12	2010	Jan	0.18	41.78	18.12	0.09	86.58	19.12
	Feb	1.00	41.94	17.46	0.64	56.94	27.46		Feb	0.18	41.94	17.46	0.09	86.74	18.46
	Mar	1.00	41.45	19.27	0.64	56.45	29.27		Mar	0.18	41.45	19.27	0.09	86.25	20.27
	Apr	1.00	41.28	22.24	0.64	56.28	32.24		Apr	0.18	41.28	22.24	0.09	86.08	23.24
	May	1.00	41.31	25.60	0.64	56.31	35.60		May	0.18	41.31	25.60	0.09	86.11	26.60
	Jun	1.00	41.34	28.10	0.64	56.34	38.10		Jun	0.18	41.34	28.10	0.09	86.14	29.10
	Jul	1.00	41.41	29.40	0.64	56.41	39.40		Jul	0.18	41.41	29.40	0.09	86.21	30.40
	Aug	1.00	41.68	29.84	0.64	56.68	39.84		Aug	0.18	41.68	29.84	0.09	86.48	30.84
	Sep	1.00	41.80	29.12	0.64	56.80	39.12		Sep	0.18	41.80	29.12	0.09	86.60	30.12
	Oct	1.00	42.05	27.97	0.64	57.05	37.97		Oct	0.18	42.05	27.97	0.09	86.85	28.97
	Nov	1.00	42.27	25.17	0.64	57.27	35.17		Nov	0.18	42.27	25.17	0.09	87.07	26.17
	Dec	1.00	42.44	21.06	0.64	57.44	31.06		Dec	0.18	42.44	21.06	0.09	87.24	22.06
2011	Jan	1.05	41.80	17.70	0.67	56.80	27.70	2011	Jan	0.19	41.80	17.70	0.10	86.60	18.70
	Feb	1.05	41.09	17.11	0.67	56.09	27.11		Feb	0.19	41.09	17.11	0.10	85.89	18.11
	Mar	1.05	40.66	18.99	0.67	55.66	28.99		Mar	0.19	40.66	18.99	0.10	85.46	19.99
	Apr	1.05	40.67	22.09	0.67	55.67	32.09		Apr	0.19	40.67	22.09	0.10	85.47	23.09
	May	1.05	40.56	25.51	0.67	55.56	35.51		May	0.19	40.56	25.51	0.10	85.36	26.51
	Jun	1.05	40.56	27.64	0.67	55.56	37.64		Jun	0.19	40.56	27.64	0.10	85.36	28.64
	Jul	1.05	40.78	29.47	0.67	55.78	39.47		Jul	0.19	40.78	29.47	0.10	85.58	30.47
	Aug	1.05	41.13	29.75	0.67	56.13	39.75		Aug	0.19	41.13	29.75	0.10	85.93	30.75
	Sep	1.05	41.51	29.33	0.67	56.51	39.33		Sep	0.19	41.51	29.33	0.10	86.31	30.33
	Oct	1.05	41.58	27.90	0.67	56.58	37.90		Oct	0.19	41.58	27.90	0.10	86.38	28.90
	Nov	1.05	41.71	24.44	0.67	56.71	34.44		Nov	0.19	41.71	24.44	0.10	86.51	25.44
	Dec	1.05	41.84	20.51	0.67	56.84	30.51		Dec	0.19	41.84	20.51	0.10	86.64	21.51
2012	Jan	1.10	41.40	17.36	0.70	56.40	27.36	2012	Jan	0.20	41.40	17.36	0.10	86.20	18.36
	Feb	1.10	40.83	17.17	0.70	55.83	27.17		Feb	0.20	40.83	17.17	0.10	85.63	18.17
	Mar	1.10	40.54	18.83	0.70	55.54	28.83		Mar	0.20	40.54	18.83	0.10	85.34	19.83
	Apr	1.10	40.15	21.91	0.70	55.15	31.91		Apr	0.20	40.15	21.91	0.10	84.95	22.91
	May	1.10	40.14	25.17	0.70	55.14	35.17		May	0.20	40.14	25.17	0.10	84.94	26.17
	Jun	1.10	40.26	27.47	0.70	55.26	37.47		Jun	0.20	40.26	27.47	0.10	85.06	28.47
	Jul	1.10	40.45	29.48	0.70	55.45	39.48		Jul	0.20	40.45	29.48	0.10	85.25	30.48
	Aug	1.10	40.77	29.81	0.70	55.77	39.81		Aug	0.20	40.77	29.81	0.10	85.57	30.81
	Sep	1.10	41.19	29.11	0.70	56.19	39.11		Sep	0.20	41.19	29.11	0.10	85.99	30.11
	Oct	1.10	41.56	27.67	0.70	56.56	37.67		Oct	0.20	41.56	27.67	0.10	86.36	28.67
	Nov	1.10	41.55	25.02	0.70	56.55	35.02		Nov	0.20	41.55	25.02	0.10	86.35	26.02
	Dec	1.10	41.84	20.87	0.70	56.84	30.87		Dec	0.20	41.84	20.87	0.10	86.64	21.87
2013	Jan	1.15	41.99	17.96	0.73	56.99	27.96	2013	Jan	0.21	41.99	17.96	0.10	86.79	18.96
	Feb	1.15	41.36	17.20	0.73	56.36	27.20		Feb	0.21	41.36	17.20	0.10	86.16	18.20
	Mar	1.15	41.32	19.10	0.73	56.32	29.10		Mar	0.21	41.32	19.10	0.10	86.12	20.10
	Apr	1.15	40.87	22.59	0.73	55.87	32.59		Apr	0.21	40.87	22.59	0.10	85.67	23.59
	May	1.15	40.84	25.41	0.73	55.84	35.41		May	0.21	40.84	25.41	0.10	85.64	26.41
	Jun	1.15	40.95	27.67	0.73	55.95	37.67		Jun	0.21	40.95	27.67	0.10	85.75	28.67
	Jul	1.15	41.24	29.86	0.73	56.24	39.86		Jul	0.21	41.24	29.86	0.10	86.04	30.86
	Aug	1.15	41.25	29.58	0.73	56.25	39.58		Aug	0.21	41.25	29.58	0.10	86.05	30.58
	Sep	1.15	41.19	28.87	0.73	56.19	38.87		Sep	0.21	41.19	28.87	0.10	85.99	29.87
	Oct	1.15	41.35	27.45	0.73	56.35	37.45		Oct	0.21	41.35	27.45	0.10	86.15	28.45
	Nov	1.15	41.54	24.66	0.73	56.54	34.66		Nov	0.21	41.54	24.66	0.10	86.34	25.66
	Dec	1.15	41.83	21.05	0.73	56.83	31.05		Dec	0.21	41.83	21.05	0.10	86.63	22.05
2014	Jan	1.20	41.79	17.64	0.76	56.79	27.64	2014	Jan	0.22	41.79	17.64	0.11	86.59	18.64
	Feb	1.20	41.38	17.36	0.76	56.38	27.36		Feb	0.22	41.38	17.36	0.11	86.18	18.36
	Mar	1.20	40.97	19.10	0.76	55.97	29.10		Mar	0.22	40.97	19.10	0.11	85.77	20.10
	Apr	1.20	40.85	22.29	0.76	55.85	32.29		Apr	0.22	40.85	22.29	0.11	85.65	23.29
	May	1.20	40.88	25.31	0.76	55.88	35.31		May	0.22	40.88	25.31	0.11	85.68	26.31
	Jun	1.20	40.96	27.79	0.76	55.96	37.79		Jun	0.22	40.96	27.79	0.11	85.76	28.79
	Jul	1.20	41.24	29.64	0.76	56.24	39.64		Jul	0.22	41.24	29.64	0.11	86.04	30.64
	Aug	1.20	41.67	29.80	0.76	56.67	39.80		Aug	0.22	41.67	29.80	0.11	86.47	30.80
	Sep	1.20	42.02	29.09	0.76	57.02	39.09		Sep	0.22	42.02	29.09	0.11	86.82	30.09
	Oct	1.20	42.28	27.90	0.76	57.28	37.90		Oct	0.22	42.28	27.90	0.11	87.08	28.90
	Nov	1.20	42.23	24.64	0.76	57.23	34.64		Nov	0.22	42.23	24.64	0.11	87.03	25.64
	Dec	1.20	42.36	20.55	0.76	57.36	30.55		Dec	0.22	42.36	20.55	0.11	87.16	21.55
2015	Jan	1.25	41.98	17.54	0.80	56.98	27.54	2015	Jan	0.23	41.98	17.54	0.11	86.78	18.54
	Feb	1.25	41.11	17.34	0.80	56.11	27.34		Feb	0.23	41.11	17.34	0.11	85.91	18.34
	Mar	1.25	40.97	19.10	0.80	55.97	29.10		Mar	0.23	40.97	19.10	0.11	85.77	20.10
	Apr	1.25	41.02	22.16	0.80	56.02	32.16		Apr	0.23	41.02	22.16	0.11	85.82	23.16

	May	1.25	41.17	25.78	0.80	56.17	35.78		May	0.23	41.17	25.78	0.11	85.97	26.78
	Jun	1.25	41.21	27.95	0.80	56.21	37.95		Jun	0.23	41.21	27.95	0.11	86.01	28.95
	Jul	1.25	41.19	29.68	0.80	56.19	39.68		Jul	0.23	41.19	29.68	0.11	85.99	30.68
	Aug	1.25	41.29	29.96	0.80	56.29	39.96		Aug	0.23	41.29	29.96	0.11	86.09	30.96
	Sep	1.25	41.48	29.51	0.80	56.48	39.51		Sep	0.23	41.48	29.51	0.11	86.28	30.51
	Oct	1.25	41.65	28.07	0.80	56.65	38.07		Oct	0.23	41.65	28.07	0.11	86.45	29.07
	Nov	1.25	41.86	24.73	0.80	56.86	34.73		Nov	0.23	41.86	24.73	0.11	86.66	25.73
	Dec	1.25	42.09	20.63	0.80	57.09	30.63		Dec	0.23	42.09	20.63	0.11	86.89	21.63

UAE (Ajman) MED		Inflow			Outflow			UAE (Ajman) RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	2.23	39.29	18.88	1.46	54.29	28.88	2004	Jan	3.82	39.29	18.88	1.91	84.09	19.88
	Feb	2.23	39.30	17.88	1.46	54.30	27.88		Feb	3.82	39.30	17.88	1.91	84.10	18.88
	Mar	2.23	39.16	19.06	1.46	54.16	29.06		Mar	3.82	39.16	19.06	1.91	83.96	20.06
	Apr	2.23	38.94	21.99	1.46	53.94	31.99		Apr	3.82	38.94	21.99	1.91	83.74	22.99
	May	2.23	38.69	25.19	1.46	53.69	35.19		May	3.82	38.69	25.19	1.91	83.49	26.19
	Jun	2.23	38.72	27.56	1.46	53.72	37.56		Jun	3.82	38.72	27.56	1.91	83.52	28.56
	Jul	2.23	39.24	29.57	1.46	54.24	39.57		Jul	3.82	39.24	29.57	1.91	84.04	30.57
	Aug	2.23	39.07	29.91	1.46	54.07	39.91		Aug	3.82	39.07	29.91	1.91	83.87	30.91
	Sep	2.23	39.45	29.53	1.46	54.45	39.53		Sep	3.82	39.45	29.53	1.91	84.25	30.53
	Oct	2.23	39.58	28.26	1.46	54.58	38.26		Oct	3.82	39.58	28.26	1.91	84.38	29.26
	Nov	2.23	39.43	25.83	1.46	54.43	35.83		Nov	3.82	39.43	25.83	1.91	84.23	26.83
	Dec	2.23	39.90	22.11	1.46	54.90	32.11		Dec	3.82	39.90	22.11	1.91	84.70	23.11
2005	Jan	2.39	39.99	18.49	1.57	54.99	28.49	2005	Jan	4.09	39.99	18.49	2.05	84.79	19.49
	Feb	2.39	39.24	17.99	1.57	54.24	27.99		Feb	4.09	39.24	17.99	2.05	84.04	18.99
	Mar	2.39	38.95	19.12	1.57	53.95	29.12		Mar	4.09	38.95	19.12	2.05	83.75	20.12
	Apr	2.39	39.04	22.24	1.57	54.04	32.24		Apr	4.09	39.04	22.24	2.05	83.84	23.24
	May	2.39	38.36	24.67	1.57	53.36	34.67		May	4.09	38.36	24.67	2.05	83.16	25.67
	Jun	2.39	38.79	27.55	1.57	53.79	37.55		Jun	4.09	38.79	27.55	2.05	83.59	28.55
	Jul	2.39	39.40	29.35	1.57	54.40	39.35		Jul	4.09	39.40	29.35	2.05	84.20	30.35
	Aug	2.39	39.71	30.11	1.57	54.71	40.11		Aug	4.09	39.71	30.11	2.05	84.51	31.11
	Sep	2.39	39.91	29.64	1.57	54.91	39.64		Sep	4.09	39.91	29.64	2.05	84.71	30.64
	Oct	2.39	39.71	28.39	1.57	54.71	38.39		Oct	4.09	39.71	28.39	2.05	84.51	29.39
	Nov	2.39	38.98	25.62	1.57	53.98	35.62		Nov	4.09	38.98	25.62	2.05	83.78	26.62
	Dec	2.39	39.47	21.97	1.57	54.47	31.97		Dec	4.09	39.47	21.97	2.05	84.27	22.97
2006	Jan	2.55	39.92	19.02	1.67	54.92	29.02	2006	Jan	4.36	39.92	19.02	2.18	84.72	20.02
	Feb	2.55	39.20	17.96	1.67	54.20	27.96		Feb	4.36	39.20	17.96	2.18	84.00	18.96
	Mar	2.55	38.87	19.13	1.67	53.87	29.13		Mar	4.36	38.87	19.13	2.18	83.67	20.13
	Apr	2.55	38.97	21.80	1.67	53.97	31.80		Apr	4.36	38.97	21.80	2.18	83.77	22.80
	May	2.55	38.41	24.66	1.67	53.41	34.66		May	4.36	38.41	24.66	2.18	83.21	25.66
	Jun	2.55	38.85	27.80	1.67	53.85	37.80		Jun	4.36	38.85	27.80	2.18	83.65	28.80
	Jul	2.55	39.35	29.47	1.67	54.35	39.47		Jul	4.36	39.35	29.47	2.18	84.15	30.47
	Aug	2.55	39.68	30.09	1.67	54.68	40.09		Aug	4.36	39.68	30.09	2.18	84.48	31.09
	Sep	2.55	39.92	29.39	1.67	54.92	39.39		Sep	4.36	39.92	29.39	2.18	84.72	30.39
	Oct	2.55	39.58	28.33	1.67	54.58	38.33		Oct	4.36	39.58	28.33	2.18	84.38	29.33
	Nov	2.55	39.27	25.67	1.67	54.27	35.67		Nov	4.36	39.27	25.67	2.18	84.07	26.67
	Dec	2.55	39.34	22.03	1.67	54.34	32.03		Dec	4.36	39.34	22.03	2.18	84.14	23.03
2007	Jan	2.70	39.80	18.87	1.78	54.80	28.87	2007	Jan	4.64	39.80	18.87	2.32	84.60	19.87
	Feb	2.70	39.24	17.93	1.78	54.24	27.93		Feb	4.64	39.24	17.93	2.32	84.04	18.93
	Mar	2.70	39.04	19.03	1.78	54.04	29.03		Mar	4.64	39.04	19.03	2.32	83.84	20.03
	Apr	2.70	38.59	21.44	1.78	53.59	31.44		Apr	4.64	38.59	21.44	2.32	83.39	22.44
	May	2.70	38.82	25.23	1.78	53.82	35.23		May	4.64	38.82	25.23	2.32	83.62	26.23
	Jun	2.70	38.89	27.70	1.78	53.89	37.70		Jun	4.64	38.89	27.70	2.32	83.69	28.70
	Jul	2.70	39.26	29.65	1.78	54.26	39.65		Jul	4.64	39.26	29.65	2.32	84.06	30.65
	Aug	2.70	39.84	29.96	1.78	54.84	39.96		Aug	4.64	39.84	29.96	2.32	84.64	30.96
	Sep	2.70	39.11	29.16	1.78	54.11	39.16		Sep	4.64	39.11	29.16	2.32	83.91	30.16
	Oct	2.70	39.51	28.40	1.78	54.51	38.40		Oct	4.64	39.51	28.40	2.32	84.31	29.40
	Nov	2.70	39.52	25.63	1.78	54.52	35.63		Nov	4.64	39.52	25.63	2.32	84.32	26.63
	Dec	2.70	39.50	21.91	1.78	54.50	31.91		Dec	4.64	39.50	21.91	2.32	84.30	22.91
2008	Jan	2.86	39.88	18.76	1.88	54.88	28.76	2008	Jan	4.91	39.88	18.76	2.45	84.68	19.76
	Feb	2.86	39.75	17.69	1.88	54.75	27.69		Feb	4.91	39.75	17.69	2.45	84.55	18.69

	Mar	2.86	39.23	18.91	1.88	54.23	28.91		Mar	4.91	39.23	18.91	2.45	84.03	19.91
	Apr	2.86	38.94	22.37	1.88	53.94	32.37		Apr	4.91	38.94	22.37	2.45	83.74	23.37
	May	2.86	38.69	25.14	1.88	53.69	35.14		May	4.91	38.69	25.14	2.45	83.49	26.14
	Jun	2.86	38.85	27.66	1.88	53.85	37.66		Jun	4.91	38.85	27.66	2.45	83.65	28.66
	Jul	2.86	38.98	29.49	1.88	53.98	39.49		Jul	4.91	38.98	29.49	2.45	83.78	30.49
	Aug	2.86	39.75	30.34	1.88	54.75	40.34		Aug	4.91	39.75	30.34	2.45	84.55	31.34
	Sep	2.86	39.34	29.34	1.88	54.34	39.34		Sep	4.91	39.34	29.34	2.45	84.14	30.34
	Oct	2.86	39.58	28.20	1.88	54.58	38.20		Oct	4.91	39.58	28.20	2.45	84.38	29.20
	Nov	2.86	39.51	25.64	1.88	54.51	35.64		Nov	4.91	39.51	25.64	2.45	84.31	26.64
	Dec	2.86	39.20	22.56	1.88	54.20	32.56		Dec	4.91	39.20	22.56	2.45	84.00	23.56
2009	Jan	3.02	39.08	19.58	1.99	54.08	29.58	2009	Jan	5.18	39.08	19.58	2.59	83.88	20.58
	Feb	3.02	38.65	18.81	1.99	53.65	28.81		Feb	5.18	38.65	18.81	2.59	83.45	19.81
	Mar	3.02	39.01	19.35	1.99	54.01	29.35		Mar	5.18	39.01	19.35	2.59	83.81	20.35
	Apr	3.02	38.93	21.44	1.99	53.93	31.44		Apr	5.18	38.93	21.44	2.59	83.73	22.44
	May	3.02	39.18	24.98	1.99	54.18	34.98		May	5.18	39.18	24.98	2.59	83.98	25.98
	Jun	3.02	39.10	27.67	1.99	54.10	37.67		Jun	5.18	39.10	27.67	2.59	83.90	28.67
	Jul	3.02	39.15	29.61	1.99	54.15	39.61		Jul	5.18	39.15	29.61	2.59	83.95	30.61
	Aug	3.02	40.22	30.54	1.99	55.22	40.54		Aug	5.18	40.22	30.54	2.59	85.02	31.54
	Sep	3.02	39.54	29.39	1.99	54.54	39.39		Sep	5.18	39.54	29.39	2.59	84.34	30.39
	Oct	3.02	40.05	28.13	1.99	55.05	38.13		Oct	5.18	40.05	28.13	2.59	84.85	29.13
	Nov	3.02	38.79	25.53	1.99	53.79	35.53		Nov	5.18	38.79	25.53	2.59	83.59	26.53
	Dec	3.02	38.89	22.78	1.99	53.89	32.78		Dec	5.18	38.89	22.78	2.59	83.69	23.78
2010	Jan	3.18	39.44	19.29	2.09	54.44	29.29	2010	Jan	5.45	39.44	19.29	2.73	84.24	20.29
	Feb	3.18	39.10	18.42	2.09	54.10	28.42		Feb	5.45	39.10	18.42	2.73	83.90	19.42
	Mar	3.18	39.29	19.27	2.09	54.29	29.27		Mar	5.45	39.29	19.27	2.73	84.09	20.27
	Apr	3.18	38.88	22.02	2.09	53.88	32.02		Apr	5.45	38.88	22.02	2.73	83.68	23.02
	May	3.18	38.64	25.25	2.09	53.64	35.25		May	5.45	38.64	25.25	2.73	83.44	26.25
	Jun	3.18	38.80	27.64	2.09	53.80	37.64		Jun	5.45	38.80	27.64	2.73	83.60	28.64
	Jul	3.18	39.10	29.38	2.09	54.10	39.38		Jul	5.45	39.10	29.38	2.73	83.90	30.38
	Aug	3.18	39.50	30.12	2.09	54.50	40.12		Aug	5.45	39.50	30.12	2.73	84.30	31.12
	Sep	3.18	39.23	29.20	2.09	54.23	39.20		Sep	5.45	39.23	29.20	2.73	84.03	30.20
	Oct	3.18	39.37	28.20	2.09	54.37	38.20		Oct	5.45	39.37	28.20	2.73	84.17	29.20
	Nov	3.18	39.65	25.75	2.09	54.65	35.75		Nov	5.45	39.65	25.75	2.73	84.45	26.75
	Dec	3.18	39.10	23.05	2.09	54.10	33.05		Dec	5.45	39.10	23.05	2.73	83.90	24.05
2011	Jan	3.34	39.73	19.34	2.20	54.73	29.34	2011	Jan	5.73	39.73	19.34	2.86	84.53	20.34
	Feb	3.34	39.31	18.45	2.20	54.31	28.45		Feb	5.73	39.31	18.45	2.86	84.11	19.45
	Mar	3.34	39.08	18.94	2.20	54.08	28.94		Mar	5.73	39.08	18.94	2.86	83.88	19.94
	Apr	3.34	39.11	21.80	2.20	54.11	31.80		Apr	5.73	39.11	21.80	2.86	83.91	22.80
	May	3.34	39.16	25.32	2.20	54.16	35.32		May	5.73	39.16	25.32	2.86	83.96	26.32
	Jun	3.34	39.05	27.85	2.20	54.05	37.85		Jun	5.73	39.05	27.85	2.86	83.85	28.85
	Jul	3.34	38.92	29.18	2.20	53.92	39.18		Jul	5.73	38.92	29.18	2.86	83.72	30.18
	Aug	3.34	39.50	30.15	2.20	54.50	40.15		Aug	5.73	39.50	30.15	2.86	84.30	31.15
	Sep	3.34	39.16	29.47	2.20	54.16	39.47		Sep	5.73	39.16	29.47	2.86	83.96	30.47
	Oct	3.34	39.47	28.42	2.20	54.47	38.42		Oct	5.73	39.47	28.42	2.86	84.27	29.42
	Nov	3.34	39.52	25.80	2.20	54.52	35.80		Nov	5.73	39.52	25.80	2.86	84.32	26.80
	Dec	3.34	39.69	22.56	2.20	54.69	32.56		Dec	5.73	39.69	22.56	2.86	84.49	23.56
2012	Jan	3.50	39.69	18.86	2.30	54.69	28.86	2012	Jan	6.00	39.69	18.86	3.00	84.49	19.86
	Feb	3.50	39.22	17.85	2.30	54.22	27.85		Feb	6.00	39.22	17.85	3.00	84.02	18.85
	Mar	3.50	39.34	18.91	2.30	54.34	28.91		Mar	6.00	39.34	18.91	3.00	84.14	19.91
	Apr	3.50	39.30	21.59	2.30	54.30	31.59		Apr	6.00	39.30	21.59	3.00	84.10	22.59
	May	3.50	39.00	25.58	2.30	54.00	35.58		May	6.00	39.00	25.58	3.00	83.80	26.58
	Jun	3.50	39.02	27.83	2.30	54.02	37.83		Jun	6.00	39.02	27.83	3.00	83.82	28.83
	Jul	3.50	39.25	29.84	2.30	54.25	39.84		Jul	6.00	39.25	29.84	3.00	84.05	30.84
	Aug	3.50	39.26	30.17	2.30	54.26	40.17		Aug	6.00	39.26	30.17	3.00	84.06	31.17
	Sep	3.50	39.54	29.70	2.30	54.54	39.70		Sep	6.00	39.54	29.70	3.00	84.34	30.70
	Oct	3.50	39.53	28.47	2.30	54.53	38.47		Oct	6.00	39.53	28.47	3.00	84.33	29.47
	Nov	3.50	39.16	26.07	2.30	54.16	36.07		Nov	6.00	39.16	26.07	3.00	83.96	27.07
	Dec	3.50	39.51	22.76	2.30	54.51	32.76		Dec	6.00	39.51	22.76	3.00	84.31	23.76
2013	Jan	3.66	39.14	19.65	2.40	54.14	29.65	2013	Jan	6.27	39.14	19.65	3.14	83.94	20.65
	Feb	3.66	39.45	18.07	2.40	54.45	28.07		Feb	6.27	39.45	18.07	3.14	84.25	19.07
	Mar	3.66	38.88	19.41	2.40	53.88	29.41		Mar	6.27	38.88	19.41	3.14	83.68	20.41
	Apr	3.66	38.86	22.40	2.40	53.86	32.40		Apr	6.27	38.86	22.40	3.14	83.66	23.40
	May	3.66	38.58	24.89	2.40	53.58	34.89		May	6.27	38.58	24.89	3.14	83.38	25.89
	Jun	3.66	38.89	27.81	2.40	53.89	37.81		Jun	6.27	38.89	27.81	3.14	83.69	28.81

	Jul	3.66	39.35	29.75	2.40	54.35	39.75		Jul	6.27	39.35	29.75	3.14	84.15	30.75
	Aug	3.66	40.05	29.76	2.40	55.05	39.76		Aug	6.27	40.05	29.76	3.14	84.85	30.76
	Sep	3.66	39.79	29.37	2.40	54.79	39.37		Sep	6.27	39.79	29.37	3.14	84.59	30.37
	Oct	3.66	39.69	28.15	2.40	54.69	38.15		Oct	6.27	39.69	28.15	3.14	84.49	29.15
	Nov	3.66	39.21	25.68	2.40	54.21	35.68		Nov	6.27	39.21	25.68	3.14	84.01	26.68
2014	Dec	3.66	39.01	22.82	2.40	54.01	32.82	2014	Dec	6.27	39.01	22.82	3.14	83.81	23.82
	Jan	3.82	39.66	18.80	2.51	54.66	28.80		Jan	6.55	39.66	18.80	3.27	84.46	19.80
	Feb	3.82	39.37	18.36	2.51	54.37	28.36		Feb	6.55	39.37	18.36	3.27	84.17	19.36
	Mar	3.82	39.18	19.30	2.51	54.18	29.30		Mar	6.55	39.18	19.30	3.27	83.98	20.30
	Apr	3.82	38.95	22.05	2.51	53.95	32.05		Apr	6.55	38.95	22.05	3.27	83.75	23.05
	May	3.82	38.97	25.49	2.51	53.97	35.49		May	6.55	38.97	25.49	3.27	83.77	26.49
	Jun	3.82	38.48	27.28	2.51	53.48	37.28		Jun	6.55	38.48	27.28	3.27	83.28	28.28
	Jul	3.82	38.94	29.75	2.51	53.94	39.75		Jul	6.55	38.94	29.75	3.27	83.74	30.75
	Aug	3.82	39.39	30.18	2.51	54.39	40.18		Aug	6.55	39.39	30.18	3.27	84.19	31.18
	Sep	3.82	39.28	29.48	2.51	54.28	39.48		Sep	6.55	39.28	29.48	3.27	84.08	30.48
	Oct	3.82	39.51	28.39	2.51	54.51	38.39		Oct	6.55	39.51	28.39	3.27	84.31	29.39
	Nov	3.82	39.19	25.59	2.51	54.19	35.59		Nov	6.55	39.19	25.59	3.27	83.99	26.59
2015	Dec	3.82	39.82	21.88	2.51	54.82	31.88	2015	Dec	6.55	39.82	21.88	3.27	84.62	22.88
	Jan	3.98	39.65	19.05	2.61	54.65	29.05		Jan	6.82	39.65	19.05	3.41	84.45	20.05
	Feb	3.98	39.28	18.30	2.61	54.28	28.30		Feb	6.82	39.28	18.30	3.41	84.08	19.30
	Mar	3.98	39.18	19.30	2.61	54.18	29.30		Mar	6.82	39.18	19.30	3.41	83.98	20.30
	Apr	3.98	39.00	21.88	2.61	54.00	31.88		Apr	6.82	39.00	21.88	3.41	83.80	22.88
	May	3.98	38.97	25.46	2.61	53.97	35.46		May	6.82	38.97	25.46	3.41	83.77	26.46
	Jun	3.98	39.62	27.87	2.61	54.62	37.87		Jun	6.82	39.62	27.87	3.41	84.42	28.87
	Jul	3.98	39.23	29.27	2.61	54.23	39.27		Jul	6.82	39.23	29.27	3.41	84.03	30.27
	Aug	3.98	39.78	30.37	2.61	54.78	40.37		Aug	6.82	39.78	30.37	3.41	84.58	31.37
	Sep	3.98	39.60	29.62	2.61	54.60	39.62		Sep	6.82	39.60	29.62	3.41	84.40	30.62
	Oct	3.98	39.74	28.68	2.61	54.74	38.68		Oct	6.82	39.74	28.68	3.41	84.54	29.68
	Nov	3.98	39.32	25.67	2.61	54.32	35.67		Nov	6.82	39.32	25.67	3.41	84.12	26.67
	Dec	3.98	39.20	22.42	2.61	54.20	32.42		Dec	6.82	39.20	22.42	3.41	84.00	23.42

UAE (Zawra) MED		Inflow			Outflow			UAE (Zawra) MSF		Inflow			Outflow		
		F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)			F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)
2004	Jan	0.70	39.29	18.88	0.45	54.29	28.88	2004	Jan	1.57	39.29	18.88	1.15	49.29	28.88
	Feb	0.70	39.30	17.88	0.45	54.30	27.88		Feb	1.57	39.30	17.88	1.15	49.30	27.88
	Mar	0.70	39.16	19.06	0.45	54.16	29.06		Mar	1.57	39.16	19.06	1.15	49.16	29.06
	Apr	0.70	38.94	21.99	0.45	53.94	31.99		Apr	1.57	38.94	21.99	1.15	48.94	31.99
	May	0.70	38.69	25.19	0.45	53.69	35.19		May	1.57	38.69	25.19	1.15	48.69	35.19
	Jun	0.70	38.72	27.56	0.45	53.72	37.56		Jun	1.57	38.72	27.56	1.15	48.72	37.56
	Jul	0.70	39.24	29.57	0.45	54.24	39.57		Jul	1.57	39.24	29.57	1.15	49.24	39.57
	Aug	0.70	39.07	29.91	0.45	54.07	39.91		Aug	1.57	39.07	29.91	1.15	49.07	39.91
	Sep	0.70	39.45	29.53	0.45	54.45	39.53		Sep	1.57	39.45	29.53	1.15	49.45	39.53
	Oct	0.70	39.58	28.26	0.45	54.58	38.26		Oct	1.57	39.58	28.26	1.15	49.58	38.26
	Nov	0.70	39.43	25.83	0.45	54.43	35.83		Nov	1.57	39.43	25.83	1.15	49.43	35.83
	Dec	0.70	39.90	22.11	0.45	54.90	32.11		Dec	1.57	39.90	22.11	1.15	49.90	32.11
2005	Jan	0.75	39.99	18.49	0.48	54.99	28.49	2005	Jan	1.66	39.99	18.49	1.22	49.99	28.49
	Feb	0.75	39.24	17.99	0.48	54.24	27.99		Feb	1.66	39.24	17.99	1.22	49.24	27.99
	Mar	0.75	38.95	19.12	0.48	53.95	29.12		Mar	1.66	38.95	19.12	1.22	48.95	29.12
	Apr	0.75	39.04	22.24	0.48	54.04	32.24		Apr	1.66	39.04	22.24	1.22	49.04	32.24
	May	0.75	38.36	24.67	0.48	53.36	34.67		May	1.66	38.36	24.67	1.22	48.36	34.67
	Jun	0.75	38.79	27.55	0.48	53.79	37.55		Jun	1.66	38.79	27.55	1.22	48.79	37.55
	Jul	0.75	39.40	29.35	0.48	54.40	39.35		Jul	1.66	39.40	29.35	1.22	49.40	39.35
	Aug	0.75	39.71	30.11	0.48	54.71	40.11		Aug	1.66	39.71	30.11	1.22	49.71	40.11
	Sep	0.75	39.91	29.64	0.48	54.91	39.64		Sep	1.66	39.91	29.64	1.22	49.91	39.64
	Oct	0.75	39.71	28.39	0.48	54.71	38.39		Oct	1.66	39.71	28.39	1.22	49.71	38.39
	Nov	0.75	38.98	25.62	0.48	53.98	35.62		Nov	1.66	38.98	25.62	1.22	48.98	35.62
	Dec	0.75	39.47	21.97	0.48	54.47	31.97		Dec	1.66	39.47	21.97	1.22	49.47	31.97
2006	Jan	0.80	39.92	19.02	0.51	54.92	29.02	2006	Jan	1.75	39.92	19.02	1.29	49.92	29.02
	Feb	0.80	39.20	17.96	0.51	54.20	27.96		Feb	1.75	39.20	17.96	1.29	49.20	27.96
	Mar	0.80	38.87	19.13	0.51	53.87	29.13		Mar	1.75	38.87	19.13	1.29	48.87	29.13
	Apr	0.80	38.97	21.80	0.51	53.97	31.80		Apr	1.75	38.97	21.80	1.29	48.97	31.80

	May	0.80	38.41	24.66	0.51	53.41	34.66		May	1.75	38.41	24.66	1.29	48.41	34.66
	Jun	0.80	38.85	27.80	0.51	53.85	37.80		Jun	1.75	38.85	27.80	1.29	48.85	37.80
	Jul	0.80	39.35	29.47	0.51	54.35	39.47		Jul	1.75	39.35	29.47	1.29	49.35	39.47
	Aug	0.80	39.68	30.09	0.51	54.68	40.09		Aug	1.75	39.68	30.09	1.29	49.68	40.09
	Sep	0.80	39.92	29.39	0.51	54.92	39.39		Sep	1.75	39.92	29.39	1.29	49.92	39.39
	Oct	0.80	39.58	28.33	0.51	54.58	38.33		Oct	1.75	39.58	28.33	1.29	49.58	38.33
	Nov	0.80	39.27	25.67	0.51	54.27	35.67		Nov	1.75	39.27	25.67	1.29	49.27	35.67
2007	Dec	0.80	39.34	22.03	0.51	54.34	32.03	2007	Dec	1.75	39.34	22.03	1.29	49.34	32.03
	Jan	0.85	39.80	18.87	0.54	54.80	28.87		Jan	1.85	39.80	18.87	1.36	49.80	28.87
	Feb	0.85	39.24	17.93	0.54	54.24	27.93		Feb	1.85	39.24	17.93	1.36	49.24	27.93
	Mar	0.85	39.04	19.03	0.54	54.04	29.03		Mar	1.85	39.04	19.03	1.36	49.04	29.03
	Apr	0.85	38.59	21.44	0.54	53.59	31.44		Apr	1.85	38.59	21.44	1.36	48.59	31.44
	May	0.85	38.82	25.23	0.54	53.82	35.23		May	1.85	38.82	25.23	1.36	48.82	35.23
	Jun	0.85	38.89	27.70	0.54	53.89	37.70		Jun	1.85	38.89	27.70	1.36	48.89	37.70
	Jul	0.85	39.26	29.65	0.54	54.26	39.65		Jul	1.85	39.26	29.65	1.36	49.26	39.65
	Aug	0.85	39.84	29.96	0.54	54.84	39.96		Aug	1.85	39.84	29.96	1.36	49.84	39.96
	Sep	0.85	39.11	29.16	0.54	54.11	39.16		Sep	1.85	39.11	29.16	1.36	49.11	39.16
	Oct	0.85	39.51	28.40	0.54	54.51	38.40		Oct	1.85	39.51	28.40	1.36	49.51	38.40
	Nov	0.85	39.52	25.63	0.54	54.52	35.63		Nov	1.85	39.52	25.63	1.36	49.52	35.63
2008	Dec	0.85	39.50	21.91	0.54	54.50	31.91	2008	Dec	1.85	39.50	21.91	1.36	49.50	31.91
	Jan	0.90	39.88	18.76	0.57	54.88	28.76		Jan	1.94	39.88	18.76	1.43	49.88	28.76
	Feb	0.90	39.75	17.69	0.57	54.75	27.69		Feb	1.94	39.75	17.69	1.43	49.75	27.69
	Mar	0.90	39.23	18.91	0.57	54.23	28.91		Mar	1.94	39.23	18.91	1.43	49.23	28.91
	Apr	0.90	38.94	22.37	0.57	53.94	32.37		Apr	1.94	38.94	22.37	1.43	48.94	32.37
	May	0.90	38.69	25.14	0.57	53.69	35.14		May	1.94	38.69	25.14	1.43	48.69	35.14
	Jun	0.90	38.85	27.66	0.57	53.85	37.66		Jun	1.94	38.85	27.66	1.43	48.85	37.66
	Jul	0.90	38.98	29.49	0.57	53.98	39.49		Jul	1.94	38.98	29.49	1.43	48.98	39.49
	Aug	0.90	39.75	30.34	0.57	54.75	40.34		Aug	1.94	39.75	30.34	1.43	49.75	40.34
	Sep	0.90	39.34	29.34	0.57	54.34	39.34		Sep	1.94	39.34	29.34	1.43	49.34	39.34
	Oct	0.90	39.58	28.20	0.57	54.58	38.20		Oct	1.94	39.58	28.20	1.43	49.58	38.20
	Nov	0.90	39.51	25.64	0.57	54.51	35.64		Nov	1.94	39.51	25.64	1.43	49.51	35.64
2009	Dec	0.90	39.20	22.56	0.57	54.20	32.56	2009	Dec	1.94	39.20	22.56	1.43	49.20	32.56
	Jan	0.95	39.08	19.58	0.60	54.08	29.58		Jan	2.03	39.08	19.58	1.50	49.08	29.58
	Feb	0.95	38.65	18.81	0.60	53.65	28.81		Feb	2.03	38.65	18.81	1.50	48.65	28.81
	Mar	0.95	39.01	19.35	0.60	54.01	29.35		Mar	2.03	39.01	19.35	1.50	49.01	29.35
	Apr	0.95	38.93	21.44	0.60	53.93	31.44		Apr	2.03	38.93	21.44	1.50	48.93	31.44
	May	0.95	39.18	24.98	0.60	54.18	34.98		May	2.03	39.18	24.98	1.50	49.18	34.98
	Jun	0.95	39.10	27.67	0.60	54.10	37.67		Jun	2.03	39.10	27.67	1.50	49.10	37.67
	Jul	0.95	39.15	29.61	0.60	54.15	39.61		Jul	2.03	39.15	29.61	1.50	49.15	39.61
	Aug	0.95	40.22	30.54	0.60	55.22	40.54		Aug	2.03	40.22	30.54	1.50	50.22	40.54
	Sep	0.95	39.54	29.39	0.60	54.54	39.39		Sep	2.03	39.54	29.39	1.50	49.54	39.39
	Oct	0.95	40.05	28.13	0.60	55.05	38.13		Oct	2.03	40.05	28.13	1.50	50.05	38.13
	Nov	0.95	38.79	25.53	0.60	53.79	35.53		Nov	2.03	38.79	25.53	1.50	48.79	35.53
2010	Dec	0.95	38.89	22.78	0.60	53.89	32.78	2010	Dec	2.03	38.89	22.78	1.50	48.89	32.78
	Jan	1.00	39.44	19.29	0.64	54.44	29.29		Jan	2.12	39.44	19.29	1.56	49.44	29.29
	Feb	1.00	39.10	18.42	0.64	54.10	28.42		Feb	2.12	39.10	18.42	1.56	49.10	28.42
	Mar	1.00	39.29	19.27	0.64	54.29	29.27		Mar	2.12	39.29	19.27	1.56	49.29	29.27
	Apr	1.00	38.88	22.02	0.64	53.88	32.02		Apr	2.12	38.88	22.02	1.56	48.88	32.02
	May	1.00	38.64	25.25	0.64	53.64	35.25		May	2.12	38.64	25.25	1.56	48.64	35.25
	Jun	1.00	38.80	27.64	0.64	53.80	37.64		Jun	2.12	38.80	27.64	1.56	48.80	37.64
	Jul	1.00	39.10	29.38	0.64	54.10	39.38		Jul	2.12	39.10	29.38	1.56	49.10	39.38
	Aug	1.00	39.50	30.12	0.64	54.50	40.12		Aug	2.12	39.50	30.12	1.56	49.50	40.12
	Sep	1.00	39.23	29.20	0.64	54.23	39.20		Sep	2.12	39.23	29.20	1.56	49.23	39.20
	Oct	1.00	39.37	28.20	0.64	54.37	38.20		Oct	2.12	39.37	28.20	1.56	49.37	38.20
	Nov	1.00	39.65	25.75	0.64	54.65	35.75		Nov	2.12	39.65	25.75	1.56	49.65	35.75
2011	Dec	1.00	39.10	23.05	0.64	54.10	33.05	2011	Dec	2.12	39.10	23.05	1.56	49.10	33.05
	Jan	1.05	39.73	19.34	0.67	54.73	29.34		Jan	2.21	39.73	19.34	1.63	49.73	29.34
	Feb	1.05	39.31	18.45	0.67	54.31	28.45		Feb	2.21	39.31	18.45	1.63	49.31	28.45
	Mar	1.05	39.08	18.94	0.67	54.08	28.94		Mar	2.21	39.08	18.94	1.63	49.08	28.94
	Apr	1.05	39.11	21.80	0.67	54.11	31.80		Apr	2.21	39.11	21.80	1.63	49.11	31.80
	May	1.05	39.16	25.32	0.67	54.16	35.32		May	2.21	39.16	25.32	1.63	49.16	35.32
	Jun	1.05	39.05	27.85	0.67	54.05	37.85		Jun	2.21	39.05	27.85	1.63	49.05	37.85
	Jul	1.05	38.92	29.18	0.67	53.92	39.18		Jul	2.21	38.92	29.18	1.63	48.92	39.18
	Aug	1.05	39.50	30.15	0.67	54.50	40.15		Aug	2.21	39.50	30.15	1.63	49.50	40.15

	Sep	1.05	39.16	29.47	0.67	54.16	39.47		Sep	2.21	39.16	29.47	1.63	49.16	39.47
	Oct	1.05	39.47	28.42	0.67	54.47	38.42		Oct	2.21	39.47	28.42	1.63	49.47	38.42
	Nov	1.05	39.52	25.80	0.67	54.52	35.80		Nov	2.21	39.52	25.80	1.63	49.52	35.80
	Dec	1.05	39.69	22.56	0.67	54.69	32.56		Dec	2.21	39.69	22.56	1.63	49.69	32.56
2012	Jan	1.10	39.69	18.86	0.70	54.69	28.86	2012	Jan	2.30	39.69	18.86	1.70	49.69	28.86
	Feb	1.10	39.22	17.85	0.70	54.22	27.85		Feb	2.30	39.22	17.85	1.70	49.22	27.85
	Mar	1.10	39.34	18.91	0.70	54.34	28.91		Mar	2.30	39.34	18.91	1.70	49.34	28.91
	Apr	1.10	39.30	21.59	0.70	54.30	31.59		Apr	2.30	39.30	21.59	1.70	49.30	31.59
	May	1.10	39.00	25.58	0.70	54.00	35.58		May	2.30	39.00	25.58	1.70	49.00	35.58
	Jun	1.10	39.02	27.83	0.70	54.02	37.83		Jun	2.30	39.02	27.83	1.70	49.02	37.83
	Jul	1.10	39.25	29.84	0.70	54.25	39.84		Jul	2.30	39.25	29.84	1.70	49.25	39.84
	Aug	1.10	39.26	30.17	0.70	54.26	40.17		Aug	2.30	39.26	30.17	1.70	49.26	40.17
	Sep	1.10	39.54	29.70	0.70	54.54	39.70		Sep	2.30	39.54	29.70	1.70	49.54	39.70
	Oct	1.10	39.53	28.47	0.70	54.53	38.47		Oct	2.30	39.53	28.47	1.70	49.53	38.47
	Nov	1.10	39.16	26.07	0.70	54.16	36.07		Nov	2.30	39.16	26.07	1.70	49.16	36.07
	Dec	1.10	39.51	22.76	0.70	54.51	32.76		Dec	2.30	39.51	22.76	1.70	49.51	32.76
2013	Jan	1.15	39.14	19.65	0.73	54.14	29.65	2013	Jan	2.39	39.14	19.65	1.77	49.14	29.65
	Feb	1.15	39.45	18.07	0.73	54.45	28.07		Feb	2.39	39.45	18.07	1.77	49.45	28.07
	Mar	1.15	38.88	19.41	0.73	53.88	29.41		Mar	2.39	38.88	19.41	1.77	48.88	29.41
	Apr	1.15	38.86	22.40	0.73	53.86	32.40		Apr	2.39	38.86	22.40	1.77	48.86	32.40
	May	1.15	38.58	24.89	0.73	53.58	34.89		May	2.39	38.58	24.89	1.77	48.58	34.89
	Jun	1.15	38.89	27.81	0.73	53.89	37.81		Jun	2.39	38.89	27.81	1.77	48.89	37.81
	Jul	1.15	39.35	29.75	0.73	54.35	39.75		Jul	2.39	39.35	29.75	1.77	49.35	39.75
	Aug	1.15	40.05	29.76	0.73	55.05	39.76		Aug	2.39	40.05	29.76	1.77	50.05	39.76
	Sep	1.15	39.79	29.37	0.73	54.79	39.37		Sep	2.39	39.79	29.37	1.77	49.79	39.37
	Oct	1.15	39.69	28.15	0.73	54.69	38.15		Oct	2.39	39.69	28.15	1.77	49.69	38.15
	Nov	1.15	39.21	25.68	0.73	54.21	35.68		Nov	2.39	39.21	25.68	1.77	49.21	35.68
	Dec	1.15	39.01	22.82	0.73	54.01	32.82		Dec	2.39	39.01	22.82	1.77	49.01	32.82
2014	Jan	1.20	39.66	18.80	0.76	54.66	28.80	2014	Jan	2.48	39.66	18.80	1.84	49.66	28.80
	Feb	1.20	39.37	18.36	0.76	54.37	28.36		Feb	2.48	39.37	18.36	1.84	49.37	28.36
	Mar	1.20	39.18	19.30	0.76	54.18	29.30		Mar	2.48	39.18	19.30	1.84	49.18	29.30
	Apr	1.20	38.95	22.05	0.76	53.95	32.05		Apr	2.48	38.95	22.05	1.84	48.95	32.05
	May	1.20	38.97	25.49	0.76	53.97	35.49		May	2.48	38.97	25.49	1.84	48.97	35.49
	Jun	1.20	38.48	27.28	0.76	53.48	37.28		Jun	2.48	38.48	27.28	1.84	48.48	37.28
	Jul	1.20	38.94	29.75	0.76	53.94	39.75		Jul	2.48	38.94	29.75	1.84	48.94	39.75
	Aug	1.20	39.39	30.18	0.76	54.39	40.18		Aug	2.48	39.39	30.18	1.84	49.39	40.18
	Sep	1.20	39.28	29.48	0.76	54.28	39.48		Sep	2.48	39.28	29.48	1.84	49.28	39.48
	Oct	1.20	39.51	28.39	0.76	54.51	38.39		Oct	2.48	39.51	28.39	1.84	49.51	38.39
	Nov	1.20	39.19	25.59	0.76	54.19	35.59		Nov	2.48	39.19	25.59	1.84	49.19	35.59
	Dec	1.20	39.82	21.88	0.76	54.82	31.88		Dec	2.48	39.82	21.88	1.84	49.82	31.88
2015	Jan	1.25	39.65	19.05	0.80	54.65	29.05	2015	Jan	2.57	39.65	19.05	1.90	49.65	29.05
	Feb	1.25	39.28	18.30	0.80	54.28	28.30		Feb	2.57	39.28	18.30	1.90	49.28	28.30
	Mar	1.25	39.18	19.30	0.80	54.18	29.30		Mar	2.57	39.18	19.30	1.90	49.18	29.30
	Apr	1.25	39.00	21.88	0.80	54.00	31.88		Apr	2.57	39.00	21.88	1.90	49.00	31.88
	May	1.25	38.97	25.46	0.80	53.97	35.46		May	2.57	38.97	25.46	1.90	48.97	35.46
	Jun	1.25	39.62	27.87	0.80	54.62	37.87		Jun	2.57	39.62	27.87	1.90	49.62	37.87
	Jul	1.25	39.23	29.27	0.80	54.23	39.27		Jul	2.57	39.23	29.27	1.90	49.23	39.27
	Aug	1.25	39.78	30.37	0.80	54.78	40.37		Aug	2.57	39.78	30.37	1.90	49.78	40.37
	Sep	1.25	39.60	29.62	0.80	54.60	39.62		Sep	2.57	39.60	29.62	1.90	49.60	39.62
	Oct	1.25	39.74	28.68	0.80	54.74	38.68		Oct	2.57	39.74	28.68	1.90	49.74	38.68
	Nov	1.25	39.32	25.67	0.80	54.32	35.67		Nov	2.57	39.32	25.67	1.90	49.32	35.67
	Dec	1.25	39.20	22.42	0.80	54.20	32.42		Dec	2.57	39.20	22.42	1.90	49.20	32.42

UAE (Zawra) RO		Inflow			Outflow			Iran (Bandar Abbas) MSF		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	2.04	39.29	18.88	1.02	84.09	19.88	2004	Jan	0.83	36.97	19.40	0.64	46.97	29.40
	Feb	2.04	39.30	17.88	1.02	84.10	18.88		Feb	0.83	36.73	19.54	0.64	46.73	29.54
	Mar	2.04	39.16	19.06	1.02	83.96	20.06		Mar	0.83	36.69	20.85	0.64	46.69	30.85
	Apr	2.04	38.94	21.99	1.02	83.74	22.99		Apr	0.83	36.76	22.94	0.64	46.76	32.94
	May	2.04	38.69	25.19	1.02	83.49	26.19		May	0.83	36.87	25.48	0.64	46.87	35.48
	Jun	2.04	38.72	27.56	1.02	83.52	28.56		Jun	0.83	37.06	27.69	0.64	47.06	37.69

	Jul	2.04	39.24	29.57	1.02	84.04	30.57		Jul	0.83	37.15	29.54	0.64	47.15	39.54
	Aug	2.04	39.07	29.91	1.02	83.87	30.91		Aug	0.83	37.17	29.11	0.64	47.17	39.11
	Sep	2.04	39.45	29.53	1.02	84.25	30.53		Sep	0.83	37.13	28.59	0.64	47.13	38.59
	Oct	2.04	39.58	28.26	1.02	84.38	29.26		Oct	0.83	37.09	27.10	0.64	47.09	37.10
	Nov	2.04	39.43	25.83	1.02	84.23	26.83		Nov	0.83	36.95	24.68	0.64	46.95	34.68
	Dec	2.04	39.90	22.11	1.02	84.70	23.11		Dec	0.83	36.82	22.27	0.64	46.82	32.27
2005	Jan	2.18	39.99	18.49	1.09	84.79	19.49	2005	Jan	0.89	36.85	19.29	0.68	46.85	29.29
	Feb	2.18	39.24	17.99	1.09	84.04	18.99		Feb	0.89	36.66	19.42	0.68	46.66	29.42
	Mar	2.18	38.95	19.12	1.09	83.75	20.12		Mar	0.89	36.66	20.58	0.68	46.66	30.58
	Apr	2.18	39.04	22.24	1.09	83.84	23.24		Apr	0.89	36.72	22.93	0.68	46.72	32.93
	May	2.18	38.36	24.67	1.09	83.16	25.67		May	0.89	36.81	24.61	0.68	46.81	34.61
	Jun	2.18	38.79	27.55	1.09	83.59	28.55		Jun	0.89	36.99	27.68	0.68	46.99	37.68
	Jul	2.18	39.40	29.35	1.09	84.20	30.35		Jul	0.89	37.14	29.53	0.68	47.14	39.53
	Aug	2.18	39.71	30.11	1.09	84.51	31.11		Aug	0.89	37.26	29.62	0.68	47.26	39.62
	Sep	2.18	39.91	29.64	1.09	84.71	30.64		Sep	0.89	37.21	28.59	0.68	47.21	38.59
	Oct	2.18	39.71	28.39	1.09	84.51	29.39		Oct	0.89	37.06	27.47	0.68	47.06	37.47
	Nov	2.18	38.98	25.62	1.09	83.78	26.62		Nov	0.89	37.00	24.83	0.68	47.00	34.83
	Dec	2.18	39.47	21.97	1.09	84.27	22.97		Dec	0.89	36.97	21.62	0.68	46.97	31.62
2006	Jan	2.33	39.92	19.02	1.16	84.72	20.02	2006	Jan	0.95	36.92	19.83	0.73	46.92	29.83
	Feb	2.33	39.20	17.96	1.16	84.00	18.96		Feb	0.95	36.72	19.29	0.73	46.72	29.29
	Mar	2.33	38.87	19.13	1.16	83.67	20.13		Mar	0.95	36.64	20.82	0.73	46.64	30.82
	Apr	2.33	38.97	21.80	1.16	83.77	22.80		Apr	0.95	36.67	23.20	0.73	46.67	33.20
	May	2.33	38.41	24.66	1.16	83.21	25.66		May	0.95	36.72	25.42	0.73	46.72	35.42
	Jun	2.33	38.85	27.80	1.16	83.65	28.80		Jun	0.95	36.84	27.50	0.73	46.84	37.50
	Jul	2.33	39.35	29.47	1.16	84.15	30.47		Jul	0.95	36.98	29.14	0.73	46.98	39.14
	Aug	2.33	39.68	30.09	1.16	84.48	31.09		Aug	0.95	37.12	29.40	0.73	47.12	39.40
	Sep	2.33	39.92	29.39	1.16	84.72	30.39		Sep	0.95	37.21	28.78	0.73	47.21	38.78
	Oct	2.33	39.58	28.33	1.16	84.38	29.33		Oct	0.95	37.15	27.57	0.73	47.15	37.57
	Nov	2.33	39.27	25.67	1.16	84.07	26.67		Nov	0.95	37.01	25.09	0.73	47.01	35.09
	Dec	2.33	39.34	22.03	1.16	84.14	23.03		Dec	0.95	36.92	21.91	0.73	46.92	31.91
2007	Jan	2.47	39.80	18.87	1.24	84.60	19.87	2007	Jan	1.00	36.92	19.78	0.77	46.92	29.78
	Feb	2.47	39.24	17.93	1.24	84.04	18.93		Feb	1.00	36.73	19.16	0.77	46.73	29.16
	Mar	2.47	39.04	19.03	1.24	83.84	20.03		Mar	1.00	36.60	20.80	0.77	46.60	30.80
	Apr	2.47	38.59	21.44	1.24	83.39	22.44		Apr	1.00	36.62	22.77	0.77	46.62	32.77
	May	2.47	38.82	25.23	1.24	83.62	26.23		May	1.00	36.73	25.94	0.77	46.73	35.94
	Jun	2.47	38.89	27.70	1.24	83.69	28.70		Jun	1.00	36.89	27.85	0.77	46.89	37.85
	Jul	2.47	39.26	29.65	1.24	84.06	30.65		Jul	1.00	36.98	29.42	0.77	46.98	39.42
	Aug	2.47	39.84	29.96	1.24	84.64	30.96		Aug	1.00	37.00	29.24	0.77	47.00	39.24
	Sep	2.47	39.11	29.16	1.24	83.91	30.16		Sep	1.00	36.99	28.49	0.77	46.99	38.49
	Oct	2.47	39.51	28.40	1.24	84.31	29.40		Oct	1.00	36.95	27.35	0.77	46.95	37.35
	Nov	2.47	39.52	25.63	1.24	84.32	26.63		Nov	1.00	36.89	24.56	0.77	46.89	34.56
	Dec	2.47	39.50	21.91	1.24	84.30	22.91		Dec	1.00	36.84	22.21	0.77	46.84	32.21
2008	Jan	2.62	39.88	18.76	1.31	84.68	19.76	2008	Jan	1.06	36.88	19.37	0.82	46.88	29.37
	Feb	2.62	39.75	17.69	1.31	84.55	18.69		Feb	1.06	36.66	19.46	0.82	46.66	29.46
	Mar	2.62	39.23	18.91	1.31	84.03	19.91		Mar	1.06	36.62	20.63	0.82	46.62	30.63
	Apr	2.62	38.94	22.37	1.31	83.74	23.37		Apr	1.06	36.65	23.05	0.82	46.65	33.05
	May	2.62	38.69	25.14	1.31	83.49	26.14		May	1.06	36.78	26.12	0.82	46.78	36.12
	Jun	2.62	38.85	27.66	1.31	83.65	28.66		Jun	1.06	36.87	27.72	0.82	46.87	37.72
	Jul	2.62	38.98	29.49	1.31	83.78	30.49		Jul	1.06	36.97	29.26	0.82	46.97	39.26
	Aug	2.62	39.75	30.34	1.31	84.55	31.34		Aug	1.06	37.07	29.38	0.82	47.07	39.38
	Sep	2.62	39.34	29.34	1.31	84.14	30.34		Sep	1.06	37.13	28.33	0.82	47.13	38.33
	Oct	2.62	39.58	28.20	1.31	84.38	29.20		Oct	1.06	37.14	27.57	0.82	47.14	37.57
	Nov	2.62	39.51	25.64	1.31	84.31	26.64		Nov	1.06	37.01	24.92	0.82	47.01	34.92
	Dec	2.62	39.20	22.56	1.31	84.00	23.56		Dec	1.06	36.99	22.13	0.82	46.99	32.13
2009	Jan	2.76	39.08	19.58	1.38	83.88	20.58	2009	Jan	1.12	36.96	20.01	0.86	46.96	30.01
	Feb	2.76	38.65	18.81	1.38	83.45	19.81		Feb	1.12	36.64	20.13	0.86	46.64	30.13
	Mar	2.76	39.01	19.35	1.38	83.81	20.35		Mar	1.12	36.58	21.32	0.86	46.58	31.32
	Apr	2.76	38.93	21.44	1.38	83.73	22.44		Apr	1.12	36.61	23.01	0.86	46.61	33.01
	May	2.76	39.18	24.98	1.38	83.98	25.98		May	1.12	36.68	25.36	0.86	46.68	35.36
	Jun	2.76	39.10	27.67	1.38	83.90	28.67		Jun	1.12	36.83	27.30	0.86	46.83	37.30
	Jul	2.76	39.15	29.61	1.38	83.95	30.61		Jul	1.12	37.02	29.61	0.86	47.02	39.61
	Aug	2.76	40.22	30.54	1.38	85.02	31.54		Aug	1.12	37.09	29.58	0.86	47.09	39.58
	Sep	2.76	39.54	29.39	1.38	84.34	30.39		Sep	1.12	37.14	28.63	0.86	47.14	38.63
	Oct	2.76	40.05	28.13	1.38	84.85	29.13		Oct	1.12	37.10	27.73	0.86	47.10	37.73

	Nov	2.76	38.79	25.53	1.38	83.59	26.53		Nov	1.12	37.11	24.99	0.86	47.11	34.99
	Dec	2.76	38.89	22.78	1.38	83.69	23.78		Dec	1.12	37.02	21.91	0.86	47.02	31.91
2010	Jan	2.91	39.44	19.29	1.45	84.24	20.29	2010	Jan	1.18	36.95	20.32	0.91	46.95	30.32
	Feb	2.91	39.10	18.42	1.45	83.90	19.42		Feb	1.18	36.75	19.59	0.91	46.75	29.59
	Mar	2.91	39.29	19.27	1.45	84.09	20.27		Mar	1.18	36.66	20.92	0.91	46.66	30.92
	Apr	2.91	38.88	22.02	1.45	83.68	23.02		Apr	1.18	36.70	23.23	0.91	46.70	33.23
	May	2.91	38.64	25.25	1.45	83.44	26.25		May	1.18	36.77	25.41	0.91	46.77	35.41
	Jun	2.91	38.80	27.64	1.45	83.60	28.64		Jun	1.18	36.92	27.50	0.91	46.92	37.50
	Jul	2.91	39.10	29.38	1.45	83.90	30.38		Jul	1.18	37.07	29.06	0.91	47.07	39.06
	Aug	2.91	39.50	30.12	1.45	84.30	31.12		Aug	1.18	37.19	29.37	0.91	47.19	39.37
	Sep	2.91	39.23	29.20	1.45	84.03	30.20		Sep	1.18	37.23	28.82	0.91	47.23	38.82
	Oct	2.91	39.37	28.20	1.45	84.17	29.20		Oct	1.18	37.17	27.48	0.91	47.17	37.48
	Nov	2.91	39.65	25.75	1.45	84.45	26.75		Nov	1.18	37.01	24.87	0.91	47.01	34.87
	Dec	2.91	39.10	23.05	1.45	83.90	24.05		Dec	1.18	37.02	21.83	0.91	47.02	31.83
2011	Jan	3.05	39.73	19.34	1.53	84.53	20.34	2011	Jan	1.24	36.85	19.28	0.95	46.85	29.28
	Feb	3.05	39.31	18.45	1.53	84.11	19.45		Feb	1.24	36.70	19.59	0.95	46.70	29.59
	Mar	3.05	39.08	18.94	1.53	83.88	19.94		Mar	1.24	36.65	21.05	0.95	46.65	31.05
	Apr	3.05	39.11	21.80	1.53	83.91	22.80		Apr	1.24	36.72	23.49	0.95	46.72	33.49
	May	3.05	39.16	25.32	1.53	83.96	26.32		May	1.24	36.77	26.47	0.95	46.77	36.47
	Jun	3.05	39.05	27.85	1.53	83.85	28.85		Jun	1.24	36.88	28.51	0.95	46.88	38.51
	Jul	3.05	38.92	29.18	1.53	83.72	30.18		Jul	1.24	36.98	29.15	0.95	46.98	39.15
	Aug	3.05	39.50	30.15	1.53	84.30	31.15		Aug	1.24	37.11	29.45	0.95	47.11	39.45
	Sep	3.05	39.16	29.47	1.53	83.96	30.47		Sep	1.24	37.21	28.77	0.95	47.21	38.77
	Oct	3.05	39.47	28.42	1.53	84.27	29.42		Oct	1.24	37.18	27.84	0.95	47.18	37.84
	Nov	3.05	39.52	25.80	1.53	84.32	26.80		Nov	1.24	37.18	25.38	0.95	47.18	35.38
	Dec	3.05	39.69	22.56	1.53	84.49	23.56		Dec	1.24	37.12	22.78	0.95	47.12	32.78
2012	Jan	3.20	39.69	18.86	1.60	84.49	19.86	2012	Jan	1.30	36.93	20.10	1.00	46.93	30.10
	Feb	3.20	39.22	17.85	1.60	84.02	18.85		Feb	1.30	36.80	19.78	1.00	46.80	29.78
	Mar	3.20	39.34	18.91	1.60	84.14	19.91		Mar	1.30	36.68	20.74	1.00	46.68	30.74
	Apr	3.20	39.30	21.59	1.60	84.10	22.59		Apr	1.30	36.70	22.91	1.00	46.70	32.91
	May	3.20	39.00	25.58	1.60	83.80	26.58		May	1.30	36.81	26.13	1.00	46.81	36.13
	Jun	3.20	39.02	27.83	1.60	83.82	28.83		Jun	1.30	36.98	28.38	1.00	46.98	38.38
	Jul	3.20	39.25	29.84	1.60	84.05	30.84		Jul	1.30	37.11	30.07	1.00	47.11	40.07
	Aug	3.20	39.26	30.17	1.60	84.06	31.17		Aug	1.30	37.23	30.05	1.00	47.23	40.05
	Sep	3.20	39.54	29.70	1.60	84.34	30.70		Sep	1.30	37.21	29.00	1.00	47.21	39.00
	Oct	3.20	39.53	28.47	1.60	84.33	29.47		Oct	1.30	37.14	27.83	1.00	47.14	37.83
	Nov	3.20	39.16	26.07	1.60	83.96	27.07		Nov	1.30	37.01	25.41	1.00	47.01	35.41
	Dec	3.20	39.51	22.76	1.60	84.31	23.76		Dec	1.30	36.87	22.25	1.00	46.87	32.25
2013	Jan	3.35	39.14	19.65	1.67	83.94	20.65	2013	Jan	1.36	36.77	20.00	1.05	46.77	30.00
	Feb	3.35	39.45	18.07	1.67	84.25	19.07		Feb	1.36	36.59	19.99	1.05	46.59	29.99
	Mar	3.35	38.88	19.41	1.67	83.68	20.41		Mar	1.36	36.58	21.05	1.05	46.58	31.05
	Apr	3.35	38.86	22.40	1.67	83.66	23.40		Apr	1.36	36.61	23.36	1.05	46.61	33.36
	May	3.35	38.58	24.89	1.67	83.38	25.89		May	1.36	36.68	25.27	1.05	46.68	35.27
	Jun	3.35	38.89	27.81	1.67	83.69	28.81		Jun	1.36	36.84	27.62	1.05	46.84	37.62
	Jul	3.35	39.35	29.75	1.67	84.15	30.75		Jul	1.36	37.04	29.53	1.05	47.04	39.53
	Aug	3.35	40.05	29.76	1.67	84.85	30.76		Aug	1.36	37.13	29.64	1.05	47.13	39.64
	Sep	3.35	39.79	29.37	1.67	84.59	30.37		Sep	1.36	37.15	29.11	1.05	47.15	39.11
	Oct	3.35	39.69	28.15	1.67	84.49	29.15		Oct	1.36	37.21	27.85	1.05	47.21	37.85
	Nov	3.35	39.21	25.68	1.67	84.01	26.68		Nov	1.36	37.31	25.16	1.05	47.31	35.16
	Dec	3.35	39.01	22.82	1.67	83.81	23.82		Dec	1.36	37.15	22.46	1.05	47.15	32.46
2014	Jan	3.49	39.66	18.80	1.75	84.46	19.80	2014	Jan	1.42	37.01	19.30	1.09	47.01	29.30
	Feb	3.49	39.37	18.36	1.75	84.17	19.36		Feb	1.42	36.70	20.10	1.09	46.70	30.10
	Mar	3.49	39.18	19.30	1.75	83.98	20.30		Mar	1.42	36.66	21.04	1.09	46.66	31.04
	Apr	3.49	38.95	22.05	1.75	83.75	23.05		Apr	1.42	36.71	23.66	1.09	46.71	33.66
	May	3.49	38.97	25.49	1.75	83.77	26.49		May	1.42	36.79	25.83	1.09	46.79	35.83
	Jun	3.49	38.48	27.28	1.75	83.28	28.28		Jun	1.42	36.93	27.90	1.09	46.93	37.90
	Jul	3.49	38.94	29.75	1.75	83.74	30.75		Jul	1.42	37.04	29.07	1.09	47.04	39.07
	Aug	3.49	39.39	30.18	1.75	84.19	31.18		Aug	1.42	37.17	29.65	1.09	47.17	39.65
	Sep	3.49	39.28	29.48	1.75	84.08	30.48		Sep	1.42	37.22	28.85	1.09	47.22	38.85
	Oct	3.49	39.51	28.39	1.75	84.31	29.39		Oct	1.42	37.18	27.42	1.09	47.18	37.42
	Nov	3.49	39.19	25.59	1.75	83.99	26.59		Nov	1.42	37.08	24.94	1.09	47.08	34.94
	Dec	3.49	39.82	21.88	1.75	84.62	22.88		Dec	1.42	36.92	22.08	1.09	46.92	32.08
2015	Jan	3.64	39.65	19.05	1.82	84.45	20.05	2015	Jan	1.48	36.83	19.93	1.14	46.83	29.93
	Feb	3.64	39.28	18.30	1.82	84.08	19.30		Feb	1.48	36.70	19.66	1.14	46.70	29.66

	Mar	3.64	39.18	19.30	1.82	83.98	20.30		Mar	1.48	36.66	21.04	1.14	46.66	31.04
	Apr	3.64	39.00	21.88	1.82	83.80	22.88		Apr	1.48	36.68	23.51	1.14	46.68	33.51
	May	3.64	38.97	25.46	1.82	83.77	26.46		May	1.48	36.76	26.12	1.14	46.76	36.12
	Jun	3.64	39.62	27.87	1.82	84.42	28.87		Jun	1.48	36.84	27.98	1.14	46.84	37.98
	Jul	3.64	39.23	29.27	1.82	84.03	30.27		Jul	1.48	37.04	26.54	1.14	47.04	36.54
	Aug	3.64	39.78	30.37	1.82	84.58	31.37		Aug	1.48	37.15	29.72	1.14	47.15	39.72
	Sep	3.64	39.60	29.62	1.82	84.40	30.62		Sep	1.48	37.22	28.85	1.14	47.22	38.85
	Oct	3.64	39.74	28.68	1.82	84.54	29.68		Oct	1.48	37.22	27.85	1.14	47.22	37.85
	Nov	3.64	39.32	25.67	1.82	84.12	26.67		Nov	1.48	37.16	25.25	1.14	47.16	35.25
	Dec	3.64	39.20	22.42	1.82	84.00	23.42		Dec	1.48	37.13	22.00	1.14	47.13	32.00

Iran (Bandar Abbas) MED		Inflow			Outflow			Iran (Bandar Abbas) RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	0.76	36.97	19.40	0.51	51.97	29.40	2004	Jan	1.65	36.97	19.40	0.83	81.77	20.40
	Feb	0.76	36.73	19.54	0.51	51.73	29.54		Feb	1.65	36.73	19.54	0.83	81.53	20.54
	Mar	0.76	36.69	20.85	0.51	51.69	30.85		Mar	1.65	36.69	20.85	0.83	81.49	21.85
	Apr	0.76	36.76	22.94	0.51	51.76	32.94		Apr	1.65	36.76	22.94	0.83	81.56	23.94
	May	0.76	36.87	25.48	0.51	51.87	35.48		May	1.65	36.87	25.48	0.83	81.67	26.48
	Jun	0.76	37.06	27.69	0.51	52.06	37.69		Jun	1.65	37.06	27.69	0.83	81.86	28.69
	Jul	0.76	37.15	29.54	0.51	52.15	39.54		Jul	1.65	37.15	29.54	0.83	81.95	30.54
	Aug	0.76	37.17	29.11	0.51	52.17	39.11		Aug	1.65	37.17	29.11	0.83	81.97	30.11
	Sep	0.76	37.13	28.59	0.51	52.13	38.59		Sep	1.65	37.13	28.59	0.83	81.93	29.59
	Oct	0.76	37.09	27.10	0.51	52.09	37.10		Oct	1.65	37.09	27.10	0.83	81.89	28.10
	Nov	0.76	36.95	24.68	0.51	51.95	34.68		Nov	1.65	36.95	24.68	0.83	81.75	25.68
	Dec	0.76	36.82	22.27	0.51	51.82	32.27		Dec	1.65	36.82	22.27	0.83	81.62	23.27
2005	Jan	0.82	36.85	19.29	0.55	51.85	29.29	2005	Jan	1.77	36.85	19.29	0.89	81.65	20.29
	Feb	0.82	36.66	19.42	0.55	51.66	29.42		Feb	1.77	36.66	19.42	0.89	81.46	20.42
	Mar	0.82	36.66	20.58	0.55	51.66	30.58		Mar	1.77	36.66	20.58	0.89	81.46	21.58
	Apr	0.82	36.72	22.93	0.55	51.72	32.93		Apr	1.77	36.72	22.93	0.89	81.52	23.93
	May	0.82	36.81	24.61	0.55	51.81	34.61		May	1.77	36.81	24.61	0.89	81.61	25.61
	Jun	0.82	36.99	27.68	0.55	51.99	37.68		Jun	1.77	36.99	27.68	0.89	81.79	28.68
	Jul	0.82	37.14	29.53	0.55	52.14	39.53		Jul	1.77	37.14	29.53	0.89	81.94	30.53
	Aug	0.82	37.26	29.62	0.55	52.26	39.62		Aug	1.77	37.26	29.62	0.89	82.06	30.62
	Sep	0.82	37.21	28.59	0.55	52.21	38.59		Sep	1.77	37.21	28.59	0.89	82.01	29.59
	Oct	0.82	37.06	27.47	0.55	52.06	37.47		Oct	1.77	37.06	27.47	0.89	81.86	28.47
	Nov	0.82	37.00	24.83	0.55	52.00	34.83		Nov	1.77	37.00	24.83	0.89	81.80	25.83
	Dec	0.82	36.97	21.62	0.55	51.97	31.62		Dec	1.77	36.97	21.62	0.89	81.77	22.62
2006	Jan	0.87	36.92	19.83	0.58	51.92	29.83	2006	Jan	1.89	36.92	19.83	0.95	81.72	20.83
	Feb	0.87	36.72	19.29	0.58	51.72	29.29		Feb	1.89	36.72	19.29	0.95	81.52	20.29
	Mar	0.87	36.64	20.82	0.58	51.64	30.82		Mar	1.89	36.64	20.82	0.95	81.44	21.82
	Apr	0.87	36.67	23.20	0.58	51.67	33.20		Apr	1.89	36.67	23.20	0.95	81.47	24.20
	May	0.87	36.72	25.42	0.58	51.72	35.42		May	1.89	36.72	25.42	0.95	81.52	26.42
	Jun	0.87	36.84	27.50	0.58	51.84	37.50		Jun	1.89	36.84	27.50	0.95	81.64	28.50
	Jul	0.87	36.98	29.14	0.58	51.98	39.14		Jul	1.89	36.98	29.14	0.95	81.78	30.14
	Aug	0.87	37.12	29.40	0.58	52.12	39.40		Aug	1.89	37.12	29.40	0.95	81.92	30.40
	Sep	0.87	37.21	28.78	0.58	52.21	38.78		Sep	1.89	37.21	28.78	0.95	82.01	29.78
	Oct	0.87	37.15	27.57	0.58	52.15	37.57		Oct	1.89	37.15	27.57	0.95	81.95	28.57
	Nov	0.87	37.01	25.09	0.58	52.01	35.09		Nov	1.89	37.01	25.09	0.95	81.81	26.09
	Dec	0.87	36.92	21.91	0.58	51.92	31.91		Dec	1.89	36.92	21.91	0.95	81.72	22.91
2007	Jan	0.93	36.92	19.78	0.62	51.92	29.78	2007	Jan	2.01	36.92	19.78	1.00	81.72	20.78
	Feb	0.93	36.73	19.16	0.62	51.73	29.16		Feb	2.01	36.73	19.16	1.00	81.53	20.16
	Mar	0.93	36.60	20.80	0.62	51.60	30.80		Mar	2.01	36.60	20.80	1.00	81.40	21.80
	Apr	0.93	36.62	22.77	0.62	51.62	32.77		Apr	2.01	36.62	22.77	1.00	81.42	23.77
	May	0.93	36.73	25.94	0.62	51.73	35.94		May	2.01	36.73	25.94	1.00	81.53	26.94
	Jun	0.93	36.89	27.85	0.62	51.89	37.85		Jun	2.01	36.89	27.85	1.00	81.79	28.85
	Jul	0.93	36.98	29.42	0.62	51.98	39.42		Jul	2.01	36.98	29.42	1.00	81.78	30.42
	Aug	0.93	37.00	29.24	0.62	52.00	39.24		Aug	2.01	37.00	29.24	1.00	81.80	30.24
	Sep	0.93	36.99	28.49	0.62	51.99	38.49		Sep	2.01	36.99	28.49	1.00	81.79	29.49
	Oct	0.93	36.95	27.35	0.62	51.95	37.35		Oct	2.01	36.95	27.35	1.00	81.75	28.35
	Nov	0.93	36.89	24.56	0.62	51.89	34.56		Nov	2.01	36.89	24.56	1.00	81.69	25.56
	Dec	0.93	36.84	22.21	0.62	51.84	32.21		Dec	2.01	36.84	22.21	1.00	81.64	23.21

2008	Jan	0.98	36.88	19.37	0.65	51.88	29.37	2008	Jan	2.13	36.88	19.37	1.06	81.68	20.37
	Feb	0.98	36.66	19.46	0.65	51.66	29.46		Feb	2.13	36.66	19.46	1.06	81.46	20.46
	Mar	0.98	36.62	20.63	0.65	51.62	30.63		Mar	2.13	36.62	20.63	1.06	81.42	21.63
	Apr	0.98	36.65	23.05	0.65	51.65	33.05		Apr	2.13	36.65	23.05	1.06	81.45	24.05
	May	0.98	36.78	26.12	0.65	51.78	36.12		May	2.13	36.78	26.12	1.06	81.58	27.12
	Jun	0.98	36.87	27.72	0.65	51.87	37.72		Jun	2.13	36.87	27.72	1.06	81.67	28.72
	Jul	0.98	36.97	29.26	0.65	51.97	39.26		Jul	2.13	36.97	29.26	1.06	81.77	30.26
	Aug	0.98	37.07	29.38	0.65	52.07	39.38		Aug	2.13	37.07	29.38	1.06	81.87	30.38
	Sep	0.98	37.13	28.33	0.65	52.13	38.33		Sep	2.13	37.13	28.33	1.06	81.93	29.33
	Oct	0.98	37.14	27.57	0.65	52.14	37.57		Oct	2.13	37.14	27.57	1.06	81.94	28.57
	Nov	0.98	37.01	24.92	0.65	52.01	34.92		Nov	2.13	37.01	24.92	1.06	81.81	25.92
	Dec	0.98	36.99	22.13	0.65	51.99	32.13		Dec	2.13	36.99	22.13	1.06	81.79	23.13
2009	Jan	1.04	36.96	20.01	0.69	51.96	30.01	2009	Jan	2.25	36.96	20.01	1.12	81.76	21.01
	Feb	1.04	36.64	20.13	0.69	51.64	30.13		Feb	2.25	36.64	20.13	1.12	81.44	21.13
	Mar	1.04	36.58	21.32	0.69	51.58	31.32		Mar	2.25	36.58	21.32	1.12	81.38	22.32
	Apr	1.04	36.61	23.01	0.69	51.61	33.01		Apr	2.25	36.61	23.01	1.12	81.41	24.01
	May	1.04	36.68	25.36	0.69	51.68	35.36		May	2.25	36.68	25.36	1.12	81.48	26.36
	Jun	1.04	36.83	27.30	0.69	51.83	37.30		Jun	2.25	36.83	27.30	1.12	81.63	28.30
	Jul	1.04	37.02	29.61	0.69	52.02	39.61		Jul	2.25	37.02	29.61	1.12	81.82	30.61
	Aug	1.04	37.09	29.58	0.69	52.09	39.58		Aug	2.25	37.09	29.58	1.12	81.89	30.58
	Sep	1.04	37.14	28.63	0.69	52.14	38.63		Sep	2.25	37.14	28.63	1.12	81.94	29.63
	Oct	1.04	37.10	27.73	0.69	52.10	37.73		Oct	2.25	37.10	27.73	1.12	81.90	28.73
	Nov	1.04	37.11	24.99	0.69	52.11	34.99		Nov	2.25	37.11	24.99	1.12	81.91	25.99
	Dec	1.04	37.02	21.91	0.69	52.02	31.91		Dec	2.25	37.02	21.91	1.12	81.82	22.91
2010	Jan	1.09	36.95	20.32	0.73	51.95	30.32	2010	Jan	2.36	36.95	20.32	1.18	81.75	21.32
	Feb	1.09	36.75	19.59	0.73	51.75	29.59		Feb	2.36	36.75	19.59	1.18	81.55	20.59
	Mar	1.09	36.66	20.92	0.73	51.66	30.92		Mar	2.36	36.66	20.92	1.18	81.46	21.92
	Apr	1.09	36.70	23.23	0.73	51.70	33.23		Apr	2.36	36.70	23.23	1.18	81.50	24.23
	May	1.09	36.77	25.41	0.73	51.77	35.41		May	2.36	36.77	25.41	1.18	81.57	26.41
	Jun	1.09	36.92	27.50	0.73	51.92	37.50		Jun	2.36	36.92	27.50	1.18	81.72	28.50
	Jul	1.09	37.07	29.06	0.73	52.07	39.06		Jul	2.36	37.07	29.06	1.18	81.87	30.06
	Aug	1.09	37.19	29.37	0.73	52.19	39.37		Aug	2.36	37.19	29.37	1.18	81.99	30.37
	Sep	1.09	37.23	28.82	0.73	52.23	38.82		Sep	2.36	37.23	28.82	1.18	82.03	29.82
	Oct	1.09	37.17	27.48	0.73	52.17	37.48		Oct	2.36	37.17	27.48	1.18	81.97	28.48
	Nov	1.09	37.01	24.87	0.73	52.01	34.87		Nov	2.36	37.01	24.87	1.18	81.81	25.87
	Dec	1.09	37.02	21.83	0.73	52.02	31.83		Dec	2.36	37.02	21.83	1.18	81.82	22.83
2011	Jan	1.15	36.85	19.28	0.76	51.85	29.28	2011	Jan	2.48	36.85	19.28	1.24	81.65	20.28
	Feb	1.15	36.70	19.59	0.76	51.70	29.59		Feb	2.48	36.70	19.59	1.24	81.50	20.59
	Mar	1.15	36.65	21.05	0.76	51.65	31.05		Mar	2.48	36.65	21.05	1.24	81.45	22.05
	Apr	1.15	36.72	23.49	0.76	51.72	33.49		Apr	2.48	36.72	23.49	1.24	81.52	24.49
	May	1.15	36.77	26.47	0.76	51.77	36.47		May	2.48	36.77	26.47	1.24	81.57	27.47
	Jun	1.15	36.88	28.51	0.76	51.88	38.51		Jun	2.48	36.88	28.51	1.24	81.68	29.51
	Jul	1.15	36.98	29.15	0.76	51.98	39.15		Jul	2.48	36.98	29.15	1.24	81.78	30.15
	Aug	1.15	37.11	29.45	0.76	52.11	39.45		Aug	2.48	37.11	29.45	1.24	81.91	30.45
	Sep	1.15	37.21	28.77	0.76	52.21	38.77		Sep	2.48	37.21	28.77	1.24	82.01	29.77
	Oct	1.15	37.18	27.84	0.76	52.18	37.84		Oct	2.48	37.18	27.84	1.24	81.98	28.84
	Nov	1.15	37.18	25.38	0.76	52.18	35.38		Nov	2.48	37.18	25.38	1.24	81.98	26.38
	Dec	1.15	37.12	22.78	0.76	52.12	32.78		Dec	2.48	37.12	22.78	1.24	81.92	23.78
2012	Jan	1.20	36.93	20.10	0.80	51.93	30.10	2012	Jan	2.60	36.93	20.10	1.30	81.73	21.10
	Feb	1.20	36.80	19.78	0.80	51.80	29.78		Feb	2.60	36.80	19.78	1.30	81.60	20.78
	Mar	1.20	36.68	20.74	0.80	51.68	30.74		Mar	2.60	36.68	20.74	1.30	81.48	21.74
	Apr	1.20	36.70	22.91	0.80	51.70	32.91		Apr	2.60	36.70	22.91	1.30	81.50	23.91
	May	1.20	36.81	26.13	0.80	51.81	36.13		May	2.60	36.81	26.13	1.30	81.61	27.13
	Jun	1.20	36.98	28.38	0.80	51.98	38.38		Jun	2.60	36.98	28.38	1.30	81.78	29.38
	Jul	1.20	37.11	30.07	0.80	52.11	40.07		Jul	2.60	37.11	30.07	1.30	81.91	31.07
	Aug	1.20	37.23	30.05	0.80	52.23	40.05		Aug	2.60	37.23	30.05	1.30	82.03	31.05
	Sep	1.20	37.21	29.00	0.80	52.21	39.00		Sep	2.60	37.21	29.00	1.30	82.01	30.00
	Oct	1.20	37.14	27.83	0.80	52.14	37.83		Oct	2.60	37.14	27.83	1.30	81.94	28.83
	Nov	1.20	37.01	25.41	0.80	52.01	35.41		Nov	2.60	37.01	25.41	1.30	81.81	26.41
	Dec	1.20	36.87	22.25	0.80	51.87	32.25		Dec	2.60	36.87	22.25	1.30	81.67	23.25
2013	Jan	1.25	36.77	20.00	0.84	51.77	30.00	2013	Jan	2.72	36.77	20.00	1.36	81.57	21.00
	Feb	1.25	36.59	19.99	0.84	51.59	29.99		Feb	2.72	36.59	19.99	1.36	81.39	20.99
	Mar	1.25	36.58	21.05	0.84	51.58	31.05		Mar	2.72	36.58	21.05	1.36	81.38	22.05
	Apr	1.25	36.61	23.36	0.84	51.61	33.36		Apr	2.72	36.61	23.36	1.36	81.41	24.36

	May	1.25	36.68	25.27	0.84	51.68	35.27		May	2.72	36.68	25.27	1.36	81.48	26.27
	Jun	1.25	36.84	27.62	0.84	51.84	37.62		Jun	2.72	36.84	27.62	1.36	81.64	28.62
	Jul	1.25	37.04	29.53	0.84	52.04	39.53		Jul	2.72	37.04	29.53	1.36	81.84	30.53
	Aug	1.25	37.13	29.64	0.84	52.13	39.64		Aug	2.72	37.13	29.64	1.36	81.93	30.64
	Sep	1.25	37.15	29.11	0.84	52.15	39.11		Sep	2.72	37.15	29.11	1.36	81.95	30.11
	Oct	1.25	37.21	27.85	0.84	52.21	37.85		Oct	2.72	37.21	27.85	1.36	82.01	28.85
	Nov	1.25	37.31	25.16	0.84	52.31	35.16		Nov	2.72	37.31	25.16	1.36	82.11	26.16
	Dec	1.25	37.15	22.46	0.84	52.15	32.46		Dec	2.72	37.15	22.46	1.36	81.95	23.46
2014	Jan	1.31	37.01	19.30	0.87	52.01	29.30	2014	Jan	2.84	37.01	19.30	1.42	81.81	20.30
	Feb	1.31	36.70	20.10	0.87	51.70	30.10		Feb	2.84	36.70	20.10	1.42	81.50	21.10
	Mar	1.31	36.66	21.04	0.87	51.66	31.04		Mar	2.84	36.66	21.04	1.42	81.46	22.04
	Apr	1.31	36.71	23.66	0.87	51.71	33.66		Apr	2.84	36.71	23.66	1.42	81.51	24.66
	May	1.31	36.79	25.83	0.87	51.79	35.83		May	2.84	36.79	25.83	1.42	81.59	26.83
	Jun	1.31	36.93	27.90	0.87	51.93	37.90		Jun	2.84	36.93	27.90	1.42	81.73	28.90
	Jul	1.31	37.04	29.07	0.87	52.04	39.07		Jul	2.84	37.04	29.07	1.42	81.84	30.07
	Aug	1.31	37.17	29.65	0.87	52.17	39.65		Aug	2.84	37.17	29.65	1.42	81.97	30.65
	Sep	1.31	37.22	28.85	0.87	52.22	38.85		Sep	2.84	37.22	28.85	1.42	82.02	29.85
	Oct	1.31	37.18	27.42	0.87	52.18	37.42		Oct	2.84	37.18	27.42	1.42	81.98	28.42
	Nov	1.31	37.08	24.94	0.87	52.08	34.94		Nov	2.84	37.08	24.94	1.42	81.88	25.94
	Dec	1.31	36.92	22.08	0.87	51.92	32.08		Dec	2.84	36.92	22.08	1.42	81.72	23.08
2015	Jan	1.36	36.83	19.93	0.91	51.83	29.93	2015	Jan	2.95	36.83	19.93	1.48	81.63	20.93
	Feb	1.36	36.70	19.66	0.91	51.70	29.66		Feb	2.95	36.70	19.66	1.48	81.50	20.66
	Mar	1.36	36.66	21.04	0.91	51.66	31.04		Mar	2.95	36.66	21.04	1.48	81.46	22.04
	Apr	1.36	36.68	23.51	0.91	51.68	33.51		Apr	2.95	36.68	23.51	1.48	81.48	24.51
	May	1.36	36.76	26.12	0.91	51.76	36.12		May	2.95	36.76	26.12	1.48	81.56	27.12
	Jun	1.36	36.84	27.98	0.91	51.84	37.98		Jun	2.95	36.84	27.98	1.48	81.64	28.98
	Jul	1.36	37.04	26.54	0.91	52.04	36.54		Jul	2.95	37.04	26.54	1.48	81.84	27.54
	Aug	1.36	37.15	29.72	0.91	52.15	39.72		Aug	2.95	37.15	29.72	1.48	81.95	30.72
	Sep	1.36	37.22	28.85	0.91	52.22	38.85		Sep	2.95	37.22	28.85	1.48	82.02	29.85
	Oct	1.36	37.22	27.85	0.91	52.22	37.85		Oct	2.95	37.22	27.85	1.48	82.02	28.85
	Nov	1.36	37.16	25.25	0.91	52.16	35.25		Nov	2.95	37.16	25.25	1.48	81.96	26.25
	Dec	1.36	37.13	22.00	0.91	52.13	32.00		Dec	2.95	37.13	22.00	1.48	81.93	23.00

Iran (Kishm) MSF		Inflow			Outflow			Iran (Kishm) MED		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	0.94	36.97	19.40	0.71	46.97	29.40	2004	Jan	0.13	36.97	19.40	0.06	51.97	29.40
	Feb	0.94	36.73	19.54	0.71	46.73	29.54		Feb	0.13	36.73	19.54	0.06	51.73	29.54
	Mar	0.94	36.69	20.85	0.71	46.69	30.85		Mar	0.13	36.69	20.85	0.06	51.69	30.85
	Apr	0.94	36.76	22.94	0.71	46.76	32.94		Apr	0.13	36.76	22.94	0.06	51.76	32.94
	May	0.94	36.87	25.48	0.71	46.87	35.48		May	0.13	36.87	25.48	0.06	51.87	35.48
	Jun	0.94	37.06	27.69	0.71	47.06	37.69		Jun	0.13	37.06	27.69	0.06	52.06	37.69
	Jul	0.94	37.15	29.54	0.71	47.15	39.54		Jul	0.13	37.15	29.54	0.06	52.15	39.54
	Aug	0.94	37.17	29.11	0.71	47.17	39.11		Aug	0.13	37.17	29.11	0.06	52.17	39.11
	Sep	0.94	37.13	28.59	0.71	47.13	38.59		Sep	0.13	37.13	28.59	0.06	52.13	38.59
	Oct	0.94	37.09	27.10	0.71	47.09	37.10		Oct	0.13	37.09	27.10	0.06	52.09	37.10
	Nov	0.94	36.95	24.68	0.71	46.95	34.68		Nov	0.13	36.95	24.68	0.06	51.95	34.68
	Dec	0.94	36.82	22.27	0.71	46.82	32.27		Dec	0.13	36.82	22.27	0.06	51.82	32.27
2005	Jan	0.98	36.85	19.29	0.75	46.85	29.29	2005	Jan	0.14	36.85	19.29	0.07	51.85	29.29
	Feb	0.98	36.66	19.42	0.75	46.66	29.42		Feb	0.14	36.66	19.42	0.07	51.66	29.42
	Mar	0.98	36.66	20.58	0.75	46.66	30.58		Mar	0.14	36.66	20.58	0.07	51.66	30.58
	Apr	0.98	36.72	22.93	0.75	46.72	32.93		Apr	0.14	36.72	22.93	0.07	51.72	32.93
	May	0.98	36.81	24.61	0.75	46.81	34.61		May	0.14	36.81	24.61	0.07	51.81	34.61
	Jun	0.98	36.99	27.68	0.75	46.99	37.68		Jun	0.14	36.99	27.68	0.07	51.99	37.68
	Jul	0.98	37.14	29.53	0.75	47.14	39.53		Jul	0.14	37.14	29.53	0.07	52.14	39.53
	Aug	0.98	37.26	29.62	0.75	47.26	39.62		Aug	0.14	37.26	29.62	0.07	52.26	39.62
	Sep	0.98	37.21	28.59	0.75	47.21	38.59		Sep	0.14	37.21	28.59	0.07	52.21	38.59
	Oct	0.98	37.06	27.47	0.75	47.06	37.47		Oct	0.14	37.06	27.47	0.07	52.06	37.47
	Nov	0.98	37.00	24.83	0.75	47.00	34.83		Nov	0.14	37.00	24.83	0.07	52.00	34.83
	Dec	0.98	36.97	21.62	0.75	46.97	31.62		Dec	0.14	36.97	21.62	0.07	51.97	31.62
2006	Jan	1.03	36.92	19.83	0.78	46.92	29.83	2006	Jan	0.15	36.92	19.83	0.07	51.92	29.83
	Feb	1.03	36.72	19.29	0.78	46.72	29.29		Feb	0.15	36.72	19.29	0.07	51.72	29.29

	Mar	1.03	36.64	20.82	0.78	46.64	30.82		Mar	0.15	36.64	20.82	0.07	51.64	30.82
	Apr	1.03	36.67	23.20	0.78	46.67	33.20		Apr	0.15	36.67	23.20	0.07	51.67	33.20
	May	1.03	36.72	25.42	0.78	46.72	35.42		May	0.15	36.72	25.42	0.07	51.72	35.42
	Jun	1.03	36.84	27.50	0.78	46.84	37.50		Jun	0.15	36.84	27.50	0.07	51.84	37.50
	Jul	1.03	36.98	29.14	0.78	46.98	39.14		Jul	0.15	36.98	29.14	0.07	51.98	39.14
	Aug	1.03	37.12	29.40	0.78	47.12	39.40		Aug	0.15	37.12	29.40	0.07	52.12	39.40
	Sep	1.03	37.21	28.78	0.78	47.21	38.78		Sep	0.15	37.21	28.78	0.07	52.21	38.78
	Oct	1.03	37.15	27.57	0.78	47.15	37.57		Oct	0.15	37.15	27.57	0.07	52.15	37.57
	Nov	1.03	37.01	25.09	0.78	47.01	35.09		Nov	0.15	37.01	25.09	0.07	52.01	35.09
	Dec	1.03	36.92	21.91	0.78	46.92	31.91		Dec	0.15	36.92	21.91	0.07	51.92	31.91
2007	Jan	1.07	36.92	19.78	0.82	46.92	29.78	2007	Jan	0.15	36.92	19.78	0.08	51.92	29.78
	Feb	1.07	36.73	19.16	0.82	46.73	29.16		Feb	0.15	36.73	19.16	0.08	51.73	29.16
	Mar	1.07	36.60	20.80	0.82	46.60	30.80		Mar	0.15	36.60	20.80	0.08	51.60	30.80
	Apr	1.07	36.62	22.77	0.82	46.62	32.77		Apr	0.15	36.62	22.77	0.08	51.62	32.77
	May	1.07	36.73	25.94	0.82	46.73	35.94		May	0.15	36.73	25.94	0.08	51.73	35.94
	Jun	1.07	36.89	27.85	0.82	46.89	37.85		Jun	0.15	36.89	27.85	0.08	51.89	37.85
	Jul	1.07	36.98	29.42	0.82	46.98	39.42		Jul	0.15	36.98	29.42	0.08	51.98	39.42
	Aug	1.07	37.00	29.24	0.82	47.00	39.24		Aug	0.15	37.00	29.24	0.08	52.00	39.24
	Sep	1.07	36.99	28.49	0.82	46.99	38.49		Sep	0.15	36.99	28.49	0.08	51.99	38.49
	Oct	1.07	36.95	27.35	0.82	46.95	37.35		Oct	0.15	36.95	27.35	0.08	51.95	37.35
	Nov	1.07	36.89	24.56	0.82	46.89	34.56		Nov	0.15	36.89	24.56	0.08	51.89	34.56
	Dec	1.07	36.84	22.21	0.82	46.84	32.21		Dec	0.15	36.84	22.21	0.08	51.84	32.21
2008	Jan	1.12	36.88	19.37	0.85	46.88	29.37	2008	Jan	0.16	36.88	19.37	0.08	51.88	29.37
	Feb	1.12	36.66	19.46	0.85	46.66	29.46		Feb	0.16	36.66	19.46	0.08	51.66	29.46
	Mar	1.12	36.62	20.63	0.85	46.62	30.63		Mar	0.16	36.62	20.63	0.08	51.62	30.63
	Apr	1.12	36.65	23.05	0.85	46.65	33.05		Apr	0.16	36.65	23.05	0.08	51.65	33.05
	May	1.12	36.78	26.12	0.85	46.78	36.12		May	0.16	36.78	26.12	0.08	51.78	36.12
	Jun	1.12	36.87	27.72	0.85	46.87	37.72		Jun	0.16	36.87	27.72	0.08	51.87	37.72
	Jul	1.12	36.97	29.26	0.85	46.97	39.26		Jul	0.16	36.97	29.26	0.08	51.97	39.26
	Aug	1.12	37.07	29.38	0.85	47.07	39.38		Aug	0.16	37.07	29.38	0.08	52.07	39.38
	Sep	1.12	37.13	28.33	0.85	47.13	38.33		Sep	0.16	37.13	28.33	0.08	52.13	38.33
	Oct	1.12	37.14	27.57	0.85	47.14	37.57		Oct	0.16	37.14	27.57	0.08	52.14	37.57
	Nov	1.12	37.01	24.92	0.85	47.01	34.92		Nov	0.16	37.01	24.92	0.08	52.01	34.92
	Dec	1.12	36.99	22.13	0.85	46.99	32.13		Dec	0.16	36.99	22.13	0.08	51.99	32.13
2009	Jan	1.16	36.96	20.01	0.89	46.96	30.01	2009	Jan	0.17	36.96	20.01	0.09	51.96	30.01
	Feb	1.16	36.64	20.13	0.89	46.64	30.13		Feb	0.17	36.64	20.13	0.09	51.64	30.13
	Mar	1.16	36.58	21.32	0.89	46.58	31.32		Mar	0.17	36.58	21.32	0.09	51.58	31.32
	Apr	1.16	36.61	23.01	0.89	46.61	33.01		Apr	0.17	36.61	23.01	0.09	51.61	33.01
	May	1.16	36.68	25.36	0.89	46.68	35.36		May	0.17	36.68	25.36	0.09	51.68	35.36
	Jun	1.16	36.83	27.30	0.89	46.83	37.30		Jun	0.17	36.83	27.30	0.09	51.83	37.30
	Jul	1.16	37.02	29.61	0.89	47.02	39.61		Jul	0.17	37.02	29.61	0.09	52.02	39.61
	Aug	1.16	37.09	29.58	0.89	47.09	39.58		Aug	0.17	37.09	29.58	0.09	52.09	39.58
	Sep	1.16	37.14	28.63	0.89	47.14	38.63		Sep	0.17	37.14	28.63	0.09	52.14	38.63
	Oct	1.16	37.10	27.73	0.89	47.10	37.73		Oct	0.17	37.10	27.73	0.09	52.10	37.73
	Nov	1.16	37.11	24.99	0.89	47.11	34.99		Nov	0.17	37.11	24.99	0.09	52.11	34.99
	Dec	1.16	37.02	21.91	0.89	47.02	31.91		Dec	0.17	37.02	21.91	0.09	52.02	31.91
2010	Jan	1.21	36.95	20.32	0.93	46.95	30.32	2010	Jan	0.18	36.95	20.32	0.09	51.95	30.32
	Feb	1.21	36.75	19.59	0.93	46.75	29.59		Feb	0.18	36.75	19.59	0.09	51.75	29.59
	Mar	1.21	36.66	20.92	0.93	46.66	30.92		Mar	0.18	36.66	20.92	0.09	51.66	30.92
	Apr	1.21	36.70	23.23	0.93	46.70	33.23		Apr	0.18	36.70	23.23	0.09	51.70	33.23
	May	1.21	36.77	25.41	0.93	46.77	35.41		May	0.18	36.77	25.41	0.09	51.77	35.41
	Jun	1.21	36.92	27.50	0.93	46.92	37.50		Jun	0.18	36.92	27.50	0.09	51.92	37.50
	Jul	1.21	37.07	29.06	0.93	47.07	39.06		Jul	0.18	37.07	29.06	0.09	52.07	39.06
	Aug	1.21	37.19	29.37	0.93	47.19	39.37		Aug	0.18	37.19	29.37	0.09	52.19	39.37
	Sep	1.21	37.23	28.82	0.93	47.23	38.82		Sep	0.18	37.23	28.82	0.09	52.23	38.82
	Oct	1.21	37.17	27.48	0.93	47.17	37.48		Oct	0.18	37.17	27.48	0.09	52.17	37.48
	Nov	1.21	37.01	24.87	0.93	47.01	34.87		Nov	0.18	37.01	24.87	0.09	52.01	34.87
	Dec	1.21	37.02	21.83	0.93	47.02	31.83		Dec	0.18	37.02	21.83	0.09	52.02	31.83
2011	Jan	1.25	36.85	19.28	0.96	46.85	29.28	2011	Jan	0.19	36.85	19.28	0.10	51.85	29.28
	Feb	1.25	36.70	19.59	0.96	46.70	29.59		Feb	0.19	36.70	19.59	0.10	51.70	29.59
	Mar	1.25	36.65	21.05	0.96	46.65	31.05		Mar	0.19	36.65	21.05	0.10	51.65	31.05
	Apr	1.25	36.72	23.49	0.96	46.72	33.49		Apr	0.19	36.72	23.49	0.10	51.72	33.49
	May	1.25	36.77	26.47	0.96	46.77	36.47		May	0.19	36.77	26.47	0.10	51.77	36.47
	Jun	1.25	36.88	28.51	0.96	46.88	38.51		Jun	0.19	36.88	28.51	0.10	51.88	38.51

	Jul	1.25	36.98	29.15	0.96	46.98	39.15		Jul	0.19	36.98	29.15	0.10	51.98	39.15
	Aug	1.25	37.11	29.45	0.96	47.11	39.45		Aug	0.19	37.11	29.45	0.10	52.11	39.45
	Sep	1.25	37.21	28.77	0.96	47.21	38.77		Sep	0.19	37.21	28.77	0.10	52.21	38.77
	Oct	1.25	37.18	27.84	0.96	47.18	37.84		Oct	0.19	37.18	27.84	0.10	52.18	37.84
	Nov	1.25	37.18	25.38	0.96	47.18	35.38		Nov	0.19	37.18	25.38	0.10	52.18	35.38
2012	Dec	1.25	37.12	22.78	0.96	47.12	32.78	2012	Dec	0.19	37.12	22.78	0.10	52.12	32.78
	Jan	1.30	36.93	20.10	1.00	46.93	30.10		Jan	0.20	36.93	20.10	0.10	51.93	30.10
	Feb	1.30	36.80	19.78	1.00	46.80	29.78		Feb	0.20	36.80	19.78	0.10	51.80	29.78
	Mar	1.30	36.68	20.74	1.00	46.68	30.74		Mar	0.20	36.68	20.74	0.10	51.68	30.74
	Apr	1.30	36.70	22.91	1.00	46.70	32.91		Apr	0.20	36.70	22.91	0.10	51.70	32.91
	May	1.30	36.81	26.13	1.00	46.81	36.13		May	0.20	36.81	26.13	0.10	51.81	36.13
	Jun	1.30	36.98	28.38	1.00	46.98	38.38		Jun	0.20	36.98	28.38	0.10	51.98	38.38
	Jul	1.30	37.11	30.07	1.00	47.11	40.07		Jul	0.20	37.11	30.07	0.10	52.11	40.07
	Aug	1.30	37.23	30.05	1.00	47.23	40.05		Aug	0.20	37.23	30.05	0.10	52.23	40.05
	Sep	1.30	37.21	29.00	1.00	47.21	39.00		Sep	0.20	37.21	29.00	0.10	52.21	39.00
	Oct	1.30	37.14	27.83	1.00	47.14	37.83		Oct	0.20	37.14	27.83	0.10	52.14	37.83
	Nov	1.30	37.01	25.41	1.00	47.01	35.41		Nov	0.20	37.01	25.41	0.10	52.01	35.41
	Dec	1.30	36.87	22.25	1.00	46.87	32.25		Dec	0.20	36.87	22.25	0.10	51.87	32.25
2013	Jan	1.35	36.77	20.00	1.04	46.77	30.00	2013	Jan	0.21	36.77	20.00	0.10	51.77	30.00
	Feb	1.35	36.59	19.99	1.04	46.59	29.99		Feb	0.21	36.59	19.99	0.10	51.59	29.99
	Mar	1.35	36.58	21.05	1.04	46.58	31.05		Mar	0.21	36.58	21.05	0.10	51.58	31.05
	Apr	1.35	36.61	23.36	1.04	46.61	33.36		Apr	0.21	36.61	23.36	0.10	51.61	33.36
	May	1.35	36.68	25.27	1.04	46.68	35.27		May	0.21	36.68	25.27	0.10	51.68	35.27
	Jun	1.35	36.84	27.62	1.04	46.84	37.62		Jun	0.21	36.84	27.62	0.10	51.84	37.62
	Jul	1.35	37.04	29.53	1.04	47.04	39.53		Jul	0.21	37.04	29.53	0.10	52.04	39.53
	Aug	1.35	37.13	29.64	1.04	47.13	39.64		Aug	0.21	37.13	29.64	0.10	52.13	39.64
	Sep	1.35	37.15	29.11	1.04	47.15	39.11		Sep	0.21	37.15	29.11	0.10	52.15	39.11
	Oct	1.35	37.21	27.85	1.04	47.21	37.85		Oct	0.21	37.21	27.85	0.10	52.21	37.85
	Nov	1.35	37.31	25.16	1.04	47.31	35.16		Nov	0.21	37.31	25.16	0.10	52.31	35.16
	Dec	1.35	37.15	22.46	1.04	47.15	32.46		Dec	0.21	37.15	22.46	0.10	52.15	32.46
2014	Jan	1.39	37.01	19.30	1.07	47.01	29.30	2014	Jan	0.22	37.01	19.30	0.11	52.01	29.30
	Feb	1.39	36.70	20.10	1.07	46.70	30.10		Feb	0.22	36.70	20.10	0.11	51.70	30.10
	Mar	1.39	36.66	21.04	1.07	46.66	31.04		Mar	0.22	36.66	21.04	0.11	51.66	31.04
	Apr	1.39	36.71	23.66	1.07	46.71	33.66		Apr	0.22	36.71	23.66	0.11	51.71	33.66
	May	1.39	36.79	25.83	1.07	46.79	35.83		May	0.22	36.79	25.83	0.11	51.79	35.83
	Jun	1.39	36.93	27.90	1.07	46.93	37.90		Jun	0.22	36.93	27.90	0.11	51.93	37.90
	Jul	1.39	37.04	29.07	1.07	47.04	39.07		Jul	0.22	37.04	29.07	0.11	52.04	39.07
	Aug	1.39	37.17	29.65	1.07	47.17	39.65		Aug	0.22	37.17	29.65	0.11	52.17	39.65
	Sep	1.39	37.22	28.85	1.07	47.22	38.85		Sep	0.22	37.22	28.85	0.11	52.22	38.85
	Oct	1.39	37.18	27.42	1.07	47.18	37.42		Oct	0.22	37.18	27.42	0.11	52.18	37.42
	Nov	1.39	37.08	24.94	1.07	47.08	34.94		Nov	0.22	37.08	24.94	0.11	52.08	34.94
	Dec	1.39	36.92	22.08	1.07	46.92	32.08		Dec	0.22	36.92	22.08	0.11	51.92	32.08
2015	Jan	1.44	36.83	19.93	1.11	46.83	29.93	2015	Jan	0.23	36.83	19.93	0.11	51.83	29.93
	Feb	1.44	36.70	19.66	1.11	46.70	29.66		Feb	0.23	36.70	19.66	0.11	51.70	29.66
	Mar	1.44	36.66	21.04	1.11	46.66	31.04		Mar	0.23	36.66	21.04	0.11	51.66	31.04
	Apr	1.44	36.68	23.51	1.11	46.68	33.51		Apr	0.23	36.68	23.51	0.11	51.68	33.51
	May	1.44	36.76	26.12	1.11	46.76	36.12		May	0.23	36.76	26.12	0.11	51.76	36.12
	Jun	1.44	36.84	27.98	1.11	46.84	37.98		Jun	0.23	36.84	27.98	0.11	51.84	37.98
	Jul	1.44	37.04	26.54	1.11	47.04	36.54		Jul	0.23	37.04	26.54	0.11	52.04	36.54
	Aug	1.44	37.15	29.72	1.11	47.15	39.72		Aug	0.23	37.15	29.72	0.11	52.15	39.72
	Sep	1.44	37.22	28.85	1.11	47.22	38.85		Sep	0.23	37.22	28.85	0.11	52.22	38.85
	Oct	1.44	37.22	27.85	1.11	47.22	37.85		Oct	0.23	37.22	27.85	0.11	52.22	37.85
	Nov	1.44	37.16	25.25	1.11	47.16	35.25		Nov	0.23	37.16	25.25	0.11	52.16	35.25
	Dec	1.44	37.13	22.00	1.11	47.13	32.00		Dec	0.23	37.13	22.00	0.11	52.13	32.00

Iran (Kishm) RO		Inflow			Outflow			Iran (Bandar Linge) MSF	Inflow			Outflow			
		F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)		F.R (m³/s)	S (ppt)	T (°C)	F.R (m³/s)	S (ppt)	T (°C)	
2004	Jan	0.13	36.97	19.40	0.06	81.77	20.40	2004	Jan	0.19	37.70	20.62	0.13	47.70	30.62
	Feb	0.13	36.73	19.54	0.06	81.53	20.54		Feb	0.19	37.48	19.51	0.13	47.48	29.51
	Mar	0.13	36.69	20.85	0.06	81.49	21.85		Mar	0.19	37.32	19.86	0.13	47.32	29.86
	Apr	0.13	36.76	22.94	0.06	81.56	23.94		Apr	0.19	37.21	21.16	0.13	47.21	31.16

	May	0.13	36.87	25.48	0.06	81.67	26.48		May	0.19	37.19	22.66	0.13	47.19	32.66
	Jun	0.13	37.06	27.69	0.06	81.86	28.69		Jun	0.19	37.17	24.52	0.13	47.17	34.52
	Jul	0.13	37.15	29.54	0.06	81.95	30.54		Jul	0.19	37.26	26.41	0.13	47.26	36.41
	Aug	0.13	37.17	29.11	0.06	81.97	30.11		Aug	0.19	37.30	27.26	0.13	47.30	37.26
	Sep	0.13	37.13	28.59	0.06	81.93	29.59		Sep	0.19	37.29	26.71	0.13	47.29	36.71
	Oct	0.13	37.09	27.10	0.06	81.89	28.10		Oct	0.19	37.23	25.90	0.13	47.23	35.90
	Nov	0.13	36.95	24.68	0.06	81.75	25.68		Nov	0.19	37.25	24.42	0.13	47.25	34.42
2005	Dec	0.13	36.82	22.27	0.06	81.62	23.27	2005	Dec	0.19	37.29	22.63	0.13	47.29	32.63
	Jan	0.14	36.85	19.29	0.07	81.65	20.29		Jan	0.20	37.58	20.66	0.14	47.58	30.66
	Feb	0.14	36.66	19.42	0.07	81.46	20.42		Feb	0.20	37.41	19.43	0.14	47.41	29.43
	Mar	0.14	36.66	20.58	0.07	81.46	21.58		Mar	0.20	37.33	19.86	0.14	47.33	29.86
	Apr	0.14	36.72	22.93	0.07	81.52	23.93		Apr	0.20	37.21	21.12	0.14	47.21	31.12
	May	0.14	36.81	24.61	0.07	81.61	25.61		May	0.20	37.15	22.50	0.14	47.15	32.50
	Jun	0.14	36.99	27.68	0.07	81.79	28.68		Jun	0.20	37.13	24.78	0.14	47.13	34.78
	Jul	0.14	37.14	29.53	0.07	81.94	30.53		Jul	0.20	37.14	27.04	0.14	47.14	37.04
	Aug	0.14	37.26	29.62	0.07	82.06	30.62		Aug	0.20	37.32	27.87	0.14	47.32	37.87
	Sep	0.14	37.21	28.59	0.07	82.01	29.59		Sep	0.20	37.34	27.21	0.14	47.34	37.21
	Oct	0.14	37.06	27.47	0.07	81.86	28.47		Oct	0.20	37.25	26.32	0.14	47.25	36.32
	Nov	0.14	37.00	24.83	0.07	81.80	25.83		Nov	0.20	37.27	24.80	0.14	47.27	34.80
2006	Dec	0.14	36.97	21.62	0.07	81.77	22.62	2006	Dec	0.20	37.43	22.88	0.14	47.43	32.88
	Jan	0.15	36.92	19.83	0.07	81.72	20.83		Jan	0.22	37.57	21.11	0.15	47.57	31.11
	Feb	0.15	36.72	19.29	0.07	81.52	20.29		Feb	0.22	37.54	19.70	0.15	47.54	29.70
	Mar	0.15	36.64	20.82	0.07	81.44	21.82		Mar	0.22	37.33	19.71	0.15	47.33	29.71
	Apr	0.15	36.67	23.20	0.07	81.47	24.20		Apr	0.22	37.27	21.34	0.15	47.27	31.34
	May	0.15	36.72	25.42	0.07	81.52	26.42		May	0.22	37.18	22.15	0.15	47.18	32.15
	Jun	0.15	36.84	27.50	0.07	81.64	28.50		Jun	0.22	37.00	25.25	0.15	47.00	35.25
	Jul	0.15	36.98	29.14	0.07	81.78	30.14		Jul	0.22	37.12	25.78	0.15	47.12	35.78
	Aug	0.15	37.12	29.40	0.07	81.92	30.40		Aug	0.22	37.28	27.59	0.15	47.28	37.59
	Sep	0.15	37.21	28.78	0.07	82.01	29.78		Sep	0.22	37.40	27.29	0.15	47.40	37.29
	Oct	0.15	37.15	27.57	0.07	81.95	28.57		Oct	0.22	37.33	26.55	0.15	47.33	36.55
	Nov	0.15	37.01	25.09	0.07	81.81	26.09		Nov	0.22	37.31	24.94	0.15	47.31	34.94
2007	Dec	0.15	36.92	21.91	0.07	81.72	22.91	2007	Dec	0.22	37.37	22.57	0.15	47.37	32.57
	Jan	0.15	36.92	19.78	0.08	81.72	20.78		Jan	0.23	37.57	20.73	0.15	47.57	30.73
	Feb	0.15	36.73	19.16	0.08	81.53	20.16		Feb	0.23	37.57	19.57	0.15	47.57	29.57
	Mar	0.15	36.60	20.80	0.08	81.40	21.80		Mar	0.23	37.37	19.51	0.15	47.37	29.51
	Apr	0.15	36.62	22.77	0.08	81.42	23.77		Apr	0.23	37.17	20.61	0.15	47.17	30.61
	May	0.15	36.73	25.94	0.08	81.53	26.94		May	0.23	36.98	23.07	0.15	46.98	33.07
	Jun	0.15	36.89	27.85	0.08	81.79	28.85		Jun	0.23	37.04	25.74	0.15	47.04	35.74
	Jul	0.15	36.98	29.42	0.08	81.78	30.42		Jul	0.23	37.07	27.14	0.15	47.07	37.14
	Aug	0.15	37.00	29.24	0.08	81.80	30.24		Aug	0.23	37.19	27.25	0.15	47.19	37.25
	Sep	0.15	36.99	28.49	0.08	81.79	29.49		Sep	0.23	37.30	26.82	0.15	47.30	36.82
	Oct	0.15	36.95	27.35	0.08	81.75	28.35		Oct	0.23	37.18	26.35	0.15	47.18	36.35
	Nov	0.15	36.89	24.56	0.08	81.69	25.56		Nov	0.23	37.19	24.75	0.15	47.19	34.75
2008	Dec	0.15	36.84	22.21	0.08	81.64	23.21	2008	Dec	0.23	37.29	22.67	0.15	47.29	32.67
	Jan	0.16	36.88	19.37	0.08	81.68	20.37		Jan	0.25	37.45	20.70	0.16	47.45	30.70
	Feb	0.16	36.66	19.46	0.08	81.46	20.46		Feb	0.25	37.55	19.47	0.16	47.55	29.47
	Mar	0.16	36.62	20.63	0.08	81.42	21.63		Mar	0.25	37.28	19.51	0.16	47.28	29.51
	Apr	0.16	36.65	23.05	0.08	81.45	24.05		Apr	0.25	37.05	21.43	0.16	47.05	31.43
	May	0.16	36.78	26.12	0.08	81.58	27.12		May	0.25	37.02	23.26	0.16	47.02	33.26
	Jun	0.16	36.87	27.72	0.08	81.67	28.72		Jun	0.25	37.03	24.85	0.16	47.03	34.85
	Jul	0.16	36.97	29.26	0.08	81.77	30.26		Jul	0.25	37.05	27.29	0.16	47.05	37.29
	Aug	0.16	37.07	29.38	0.08	81.87	30.38		Aug	0.25	37.27	27.76	0.16	47.27	37.76
	Sep	0.16	37.13	28.33	0.08	81.93	29.33		Sep	0.25	37.24	26.81	0.16	47.24	36.81
	Oct	0.16	37.14	27.57	0.08	81.94	28.57		Oct	0.25	37.28	26.19	0.16	47.28	36.19
	Nov	0.16	37.01	24.92	0.08	81.81	25.92		Nov	0.25	37.27	24.70	0.16	47.27	34.70
2009	Dec	0.16	36.99	22.13	0.08	81.79	23.13	2009	Dec	0.25	37.35	22.83	0.16	47.35	32.83
	Jan	0.17	36.96	20.01	0.09	81.76	21.01		Jan	0.26	37.63	21.05	0.17	47.63	31.05
	Feb	0.17	36.64	20.13	0.09	81.44	21.13		Feb	0.26	37.66	19.90	0.17	47.66	29.90
	Mar	0.17	36.58	21.32	0.09	81.38	22.32		Mar	0.26	37.11	20.21	0.17	47.11	30.21
	Apr	0.17	36.61	23.01	0.09	81.41	24.01		Apr	0.26	37.06	21.60	0.17	47.06	31.60
	May	0.17	36.68	25.36	0.09	81.48	26.36		May	0.26	37.04	24.21	0.17	47.04	34.21
	Jun	0.17	36.83	27.30	0.09	81.63	28.30		Jun	0.26	37.00	24.84	0.17	47.00	34.84
	Jul	0.17	37.02	29.61	0.09	81.82	30.61		Jul	0.26	37.11	27.11	0.17	47.11	37.11
	Aug	0.17	37.09	29.58	0.09	81.89	30.58		Aug	0.26	37.11	27.94	0.17	47.11	37.94

	Sep	0.17	37.14	28.63	0.09	81.94	29.63		Sep	0.26	37.27	27.24	0.17	47.27	37.24
	Oct	0.17	37.10	27.73	0.09	81.90	28.73		Oct	0.26	37.26	26.37	0.17	47.26	36.37
	Nov	0.17	37.11	24.99	0.09	81.91	25.99		Nov	0.26	37.40	24.87	0.17	47.40	34.87
	Dec	0.17	37.02	21.91	0.09	81.82	22.91		Dec	0.26	37.42	22.88	0.17	47.42	32.88
2010	Jan	0.18	36.95	20.32	0.09	81.75	21.32	2010	Jan	0.27	37.43	20.70	0.18	47.43	30.70
	Feb	0.18	36.75	19.59	0.09	81.55	20.59		Feb	0.27	37.45	19.63	0.18	47.45	29.63
	Mar	0.18	36.66	20.92	0.09	81.46	21.92		Mar	0.27	37.37	19.85	0.18	47.37	29.85
	Apr	0.18	36.70	23.23	0.09	81.50	24.23		Apr	0.27	37.14	21.10	0.18	47.14	31.10
	May	0.18	36.77	25.41	0.09	81.57	26.41		May	0.27	37.21	22.26	0.18	47.21	32.26
	Jun	0.18	36.92	27.50	0.09	81.72	28.50		Jun	0.27	37.09	25.00	0.18	47.09	35.00
	Jul	0.18	37.07	29.06	0.09	81.87	30.06		Jul	0.27	37.14	26.16	0.18	47.14	36.16
	Aug	0.18	37.19	29.37	0.09	81.99	30.37		Aug	0.27	37.42	27.19	0.18	47.42	37.19
	Sep	0.18	37.23	28.82	0.09	82.03	29.82		Sep	0.27	37.35	26.93	0.18	47.35	36.93
	Oct	0.18	37.17	27.48	0.09	81.97	28.48		Oct	0.27	37.36	26.48	0.18	47.36	36.48
	Nov	0.18	37.01	24.87	0.09	81.81	25.87		Nov	0.27	37.26	24.93	0.18	47.26	34.93
	Dec	0.18	37.02	21.83	0.09	81.82	22.83		Dec	0.27	37.40	22.87	0.18	47.40	32.87
2011	Jan	0.19	36.85	19.28	0.10	81.65	20.28	2011	Jan	0.29	37.63	21.23	0.19	47.63	31.23
	Feb	0.19	36.70	19.59	0.10	81.50	20.59		Feb	0.29	37.52	19.65	0.19	47.52	29.65
	Mar	0.19	36.65	21.05	0.10	81.45	22.05		Mar	0.29	37.26	19.68	0.19	47.26	29.68
	Apr	0.19	36.72	23.49	0.10	81.52	24.49		Apr	0.29	37.04	21.59	0.19	47.04	31.59
	May	0.19	36.77	26.47	0.10	81.57	27.47		May	0.29	37.04	24.25	0.19	47.04	34.25
	Jun	0.19	36.88	28.51	0.10	81.68	29.51		Jun	0.29	37.05	25.91	0.19	47.05	35.91
	Jul	0.19	36.98	29.15	0.10	81.78	30.15		Jul	0.29	37.11	26.67	0.19	47.11	36.67
	Aug	0.19	37.11	29.45	0.10	81.91	30.45		Aug	0.29	37.38	27.29	0.19	47.38	37.29
	Sep	0.19	37.21	28.77	0.10	82.01	29.77		Sep	0.29	37.58	26.90	0.19	47.58	36.90
	Oct	0.19	37.18	27.84	0.10	81.98	28.84		Oct	0.29	37.39	26.68	0.19	47.39	36.68
	Nov	0.19	37.18	25.38	0.10	81.98	26.38		Nov	0.29	37.37	25.06	0.19	47.37	35.06
	Dec	0.19	37.12	22.78	0.10	81.92	23.78		Dec	0.29	37.59	23.26	0.19	47.59	33.26
2012	Jan	0.20	36.93	20.10	0.10	81.73	21.10	2012	Jan	0.30	37.69	21.46	0.20	47.69	31.46
	Feb	0.20	36.80	19.78	0.10	81.60	20.78		Feb	0.30	37.51	19.85	0.20	47.51	29.85
	Mar	0.20	36.68	20.74	0.10	81.48	21.74		Mar	0.30	37.27	19.74	0.20	47.27	29.74
	Apr	0.20	36.70	22.91	0.10	81.50	23.91		Apr	0.30	37.12	21.28	0.20	47.12	31.28
	May	0.20	36.81	26.13	0.10	81.61	27.13		May	0.30	37.05	23.71	0.20	47.05	33.71
	Jun	0.20	36.98	28.38	0.10	81.78	29.38		Jun	0.30	37.03	25.57	0.20	47.03	35.57
	Jul	0.20	37.11	30.07	0.10	81.91	31.07		Jul	0.30	37.25	27.25	0.20	47.25	37.25
	Aug	0.20	37.23	30.05	0.10	82.03	31.05		Aug	0.30	37.37	27.34	0.20	47.37	37.34
	Sep	0.20	37.21	29.00	0.10	82.01	30.00		Sep	0.30	37.41	26.88	0.20	47.41	36.88
	Oct	0.20	37.14	27.83	0.10	81.94	28.83		Oct	0.30	37.32	26.26	0.20	47.32	36.26
	Nov	0.20	37.01	25.41	0.10	81.81	26.41		Nov	0.30	37.36	24.83	0.20	47.36	34.83
	Dec	0.20	36.87	22.25	0.10	81.67	23.25		Dec	0.30	37.25	23.17	0.20	47.25	33.17
2013	Jan	0.21	36.77	20.00	0.10	81.57	21.00	2013	Jan	0.31	37.63	21.29	0.21	47.63	31.29
	Feb	0.21	36.59	19.99	0.10	81.39	20.99		Feb	0.31	37.57	20.09	0.21	47.57	30.09
	Mar	0.21	36.58	21.05	0.10	81.38	22.05		Mar	0.31	37.29	20.11	0.21	47.29	30.11
	Apr	0.21	36.61	23.36	0.10	81.41	24.36		Apr	0.31	37.03	21.57	0.21	47.03	31.57
	May	0.21	36.68	25.27	0.10	81.48	26.27		May	0.31	37.15	23.44	0.21	47.15	33.44
	Jun	0.21	36.84	27.62	0.10	81.64	28.62		Jun	0.31	37.03	25.48	0.21	47.03	35.48
	Jul	0.21	37.04	29.53	0.10	81.84	30.53		Jul	0.31	37.14	27.14	0.21	47.14	37.14
	Aug	0.21	37.13	29.64	0.10	81.93	30.64		Aug	0.31	37.47	27.54	0.21	47.47	37.54
	Sep	0.21	37.15	29.11	0.10	81.95	30.11		Sep	0.31	37.44	27.21	0.21	47.44	37.21
	Oct	0.21	37.21	27.85	0.10	82.01	28.85		Oct	0.31	37.44	26.19	0.21	47.44	36.19
	Nov	0.21	37.31	25.16	0.10	82.11	26.16		Nov	0.31	37.56	24.98	0.21	47.56	34.98
	Dec	0.21	37.15	22.46	0.10	81.95	23.46		Dec	0.31	37.62	23.22	0.21	47.62	33.22
2014	Jan	0.22	37.01	19.30	0.11	81.81	20.30	2014	Jan	0.33	37.72	20.96	0.22	47.72	30.96
	Feb	0.22	36.70	20.10	0.11	81.50	21.10		Feb	0.33	37.64	19.59	0.22	47.64	29.59
	Mar	0.22	36.66	21.04	0.11	81.46	22.04		Mar	0.33	37.24	19.88	0.22	47.24	29.88
	Apr	0.22	36.71	23.66	0.11	81.51	24.66		Apr	0.33	37.02	21.83	0.22	47.02	31.83
	May	0.22	36.79	25.83	0.11	81.59	26.83		May	0.33	37.12	23.43	0.22	47.12	33.43
	Jun	0.22	36.93	27.90	0.11	81.73	28.90		Jun	0.33	37.08	24.75	0.22	47.08	34.75
	Jul	0.22	37.04	29.07	0.11	81.84	30.07		Jul	0.33	37.18	26.87	0.22	47.18	36.87
	Aug	0.22	37.17	29.65	0.11	81.97	30.65		Aug	0.33	37.49	27.14	0.22	47.49	37.14
	Sep	0.22	37.22	28.85	0.11	82.02	29.85		Sep	0.33	37.63	26.85	0.22	47.63	36.85
	Oct	0.22	37.18	27.42	0.11	81.98	28.42		Oct	0.33	37.38	26.48	0.22	47.38	36.48
	Nov	0.22	37.08	24.94	0.11	81.88	25.94		Nov	0.33	37.57	24.80	0.22	47.57	34.80
	Dec	0.22	36.92	22.08	0.11	81.72	23.08		Dec	0.33	37.55	22.54	0.22	47.55	32.54

2015	Jan	0.23	36.83	19.93	0.11	81.63	20.93	2015	Jan	0.34	37.62	20.92	0.23	47.62	30.92
	Feb	0.23	36.70	19.66	0.11	81.50	20.66		Feb	0.34	37.59	19.76	0.23	47.59	29.76
	Mar	0.23	36.66	21.04	0.11	81.46	22.04		Mar	0.34	37.24	19.88	0.23	47.24	29.88
	Apr	0.23	36.68	23.51	0.11	81.48	24.51		Apr	0.34	37.11	21.90	0.23	47.11	31.90
	May	0.23	36.76	26.12	0.11	81.56	27.12		May	0.34	36.93	23.76	0.23	46.93	33.76
	Jun	0.23	36.84	27.98	0.11	81.64	28.98		Jun	0.34	37.02	24.74	0.23	47.02	34.74
	Jul	0.23	37.04	26.54	0.11	81.84	27.54		Jul	0.34	37.13	26.26	0.23	47.13	36.26
	Aug	0.23	37.15	29.72	0.11	81.95	30.72		Aug	0.34	37.41	27.21	0.23	47.41	37.21
	Sep	0.23	37.22	28.85	0.11	82.02	29.85		Sep	0.34	37.53	26.92	0.23	47.53	36.92
	Oct	0.23	37.22	27.85	0.11	82.02	28.85		Oct	0.34	37.42	26.47	0.23	47.42	36.47
	Nov	0.23	37.16	25.25	0.11	81.96	26.25		Nov	0.34	37.45	25.01	0.23	47.45	35.01
	Dec	0.23	37.13	22.00	0.11	81.93	23.00		Dec	0.34	37.76	22.94	0.23	47.76	32.94

Iran (Kish Isl) RO		Inflow			Outflow			Iran (Asaluyeh) MED		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	0.20	36.97	19.40	0.10	81.77	20.40	2004	Jan	1.65	37.75	20.84	1.08	52.75	30.84
	Feb	0.20	36.73	19.54	0.10	81.53	20.54		Feb	1.65	37.81	19.40	1.08	52.81	29.40
	Mar	0.20	36.69	20.85	0.10	81.49	21.85		Mar	1.65	37.89	19.35	1.08	52.89	29.35
	Apr	0.20	36.76	22.94	0.10	81.56	23.94		Apr	1.65	37.68	20.91	1.08	52.68	30.91
	May	0.20	36.87	25.48	0.10	81.67	26.48		May	1.65	37.67	22.23	1.08	52.67	32.23
	Jun	0.20	37.06	27.69	0.10	81.86	28.69		Jun	1.65	37.58	23.49	1.08	52.58	33.49
	Jul	0.20	37.15	29.54	0.10	81.95	30.54		Jul	1.65	37.59	24.07	1.08	52.59	34.07
	Aug	0.20	37.17	29.11	0.10	81.97	30.11		Aug	1.65	37.73	26.02	1.08	52.73	36.02
	Sep	0.20	37.13	28.59	0.10	81.93	29.59		Sep	1.65	37.69	25.31	1.08	52.69	35.31
	Oct	0.20	37.09	27.10	0.10	81.89	28.10		Oct	1.65	37.67	25.32	1.08	52.67	35.32
	Nov	0.20	36.95	24.68	0.10	81.75	25.68		Nov	1.65	37.70	24.36	1.08	52.70	34.36
	Dec	0.20	36.82	22.27	0.10	81.62	23.27		Dec	1.65	37.73	22.75	1.08	52.73	32.75
2005	Jan	0.20	36.85	19.29	0.10	81.65	20.29	2005	Jan	1.77	37.73	20.73	1.16	52.73	30.73
	Feb	0.20	36.66	19.42	0.10	81.46	20.42		Feb	1.77	37.80	19.42	1.16	52.80	29.42
	Mar	0.20	36.66	20.58	0.10	81.46	21.58		Mar	1.77	37.92	19.67	1.16	52.92	29.67
	Apr	0.20	36.72	22.93	0.10	81.52	23.93		Apr	1.77	37.76	20.51	1.16	52.76	30.51
	May	0.20	36.81	24.61	0.10	81.61	25.61		May	1.77	37.46	22.08	1.16	52.46	32.08
	Jun	0.20	36.99	27.68	0.10	81.79	28.68		Jun	1.77	37.46	23.28	1.16	52.46	33.28
	Jul	0.20	37.14	29.53	0.10	81.94	30.53		Jul	1.77	37.44	23.33	1.16	52.44	33.33
	Aug	0.20	37.26	29.62	0.10	82.06	30.62		Aug	1.77	37.59	25.76	1.16	52.59	35.76
	Sep	0.20	37.21	28.59	0.10	82.01	29.59		Sep	1.77	37.82	25.25	1.16	52.82	35.25
	Oct	0.20	37.06	27.47	0.10	81.86	28.47		Oct	1.77	37.71	24.64	1.16	52.71	34.64
	Nov	0.20	37.00	24.83	0.10	81.80	25.83		Nov	1.77	37.70	23.93	1.16	52.70	33.93
	Dec	0.20	36.97	21.62	0.10	81.77	22.62		Dec	1.77	37.85	22.65	1.16	52.85	32.65
2006	Jan	0.20	36.92	19.83	0.10	81.72	20.83	2006	Jan	1.89	37.90	21.01	1.24	52.90	31.01
	Feb	0.20	36.72	19.29	0.10	81.52	20.29		Feb	1.89	38.00	19.63	1.24	53.00	29.63
	Mar	0.20	36.64	20.82	0.10	81.44	21.82		Mar	1.89	37.98	19.47	1.24	52.98	29.47
	Apr	0.20	36.67	23.20	0.10	81.47	24.20		Apr	1.89	37.87	21.03	1.24	52.87	31.03
	May	0.20	36.72	25.42	0.10	81.52	26.42		May	1.89	37.52	22.43	1.24	52.52	32.43
	Jun	0.20	36.84	27.50	0.10	81.64	28.50		Jun	1.89	37.46	23.19	1.24	52.46	33.19
	Jul	0.20	36.98	29.14	0.10	81.78	30.14		Jul	1.89	37.36	24.73	1.24	52.36	34.73
	Aug	0.20	37.12	29.40	0.10	81.92	30.40		Aug	1.89	37.50	26.47	1.24	52.50	36.47
	Sep	0.20	37.21	28.78	0.10	82.01	29.78		Sep	1.89	37.78	25.65	1.24	52.78	35.65
	Oct	0.20	37.15	27.57	0.10	81.95	28.57		Oct	1.89	37.73	25.52	1.24	52.73	35.52
	Nov	0.20	37.01	25.09	0.10	81.81	26.09		Nov	1.89	37.79	23.96	1.24	52.79	33.96
	Dec	0.20	36.92	21.91	0.10	81.72	22.91		Dec	1.89	37.91	22.46	1.24	52.91	32.46
2007	Jan	0.20	36.92	19.78	0.10	81.72	20.78	2007	Jan	2.01	37.92	20.82	1.31	52.92	30.82
	Feb	0.20	36.73	19.16	0.10	81.53	20.16		Feb	2.01	37.95	19.67	1.31	52.95	29.67
	Mar	0.20	36.60	20.80	0.10	81.40	21.80		Mar	2.01	37.91	19.46	1.31	52.91	29.46
	Apr	0.20	36.62	22.77	0.10	81.42	23.77		Apr	2.01	37.66	20.93	1.31	52.66	30.93
	May	0.20	36.73	25.94	0.10	81.53	26.94		May	2.01	37.62	22.87	1.31	52.62	32.87
	Jun	0.20	36.89	27.85	0.10	81.79	28.85		Jun	2.01	37.33	24.76	1.31	52.33	34.76
	Jul	0.20	36.98	29.42	0.10	81.78	30.42		Jul	2.01	37.39	25.73	1.31	52.39	35.73
	Aug	0.20	37.00	29.24	0.10	81.80	30.24		Aug	2.01	37.47	26.34	1.31	52.47	36.34
	Sep	0.20	36.99	28.49	0.10	81.79	29.49		Sep	2.01	37.68	25.89	1.31	52.68	35.89
	Oct	0.20	36.95	27.35	0.10	81.75	28.35		Oct	2.01	37.64	25.76	1.31	52.64	35.76

	Nov	0.20	36.89	24.56	0.10	81.69	25.56		Nov	2.01	37.74	24.23	1.31	52.74	34.23
	Dec	0.20	36.84	22.21	0.10	81.64	23.21		Dec	2.01	37.80	23.04	1.31	52.80	33.04
2008	Jan	0.20	36.88	19.37	0.10	81.68	20.37	2008	Jan	2.13	37.78	21.11	1.39	52.78	31.11
	Feb	0.20	36.66	19.46	0.10	81.46	20.46		Feb	2.13	37.92	19.78	1.39	52.92	29.78
	Mar	0.20	36.62	20.63	0.10	81.42	21.63		Mar	2.13	37.88	19.38	1.39	52.88	29.38
	Apr	0.20	36.65	23.05	0.10	81.45	24.05		Apr	2.13	37.61	21.44	1.39	52.61	31.44
	May	0.20	36.78	26.12	0.10	81.58	27.12		May	2.13	37.43	23.22	1.39	52.43	33.22
	Jun	0.20	36.87	27.72	0.10	81.67	28.72		Jun	2.13	37.38	24.49	1.39	52.38	34.49
	Jul	0.20	36.97	29.26	0.10	81.77	30.26		Jul	2.13	37.32	25.84	1.39	52.32	35.84
	Aug	0.20	37.07	29.38	0.10	81.87	30.38		Aug	2.13	37.61	25.59	1.39	52.61	35.59
	Sep	0.20	37.13	28.33	0.10	81.93	29.33		Sep	2.13	37.66	26.33	1.39	52.66	36.33
	Oct	0.20	37.14	27.57	0.10	81.94	28.57		Oct	2.13	37.62	25.09	1.39	52.62	35.09
	Nov	0.20	37.01	24.92	0.10	81.81	25.92		Nov	2.13	37.71	23.96	1.39	52.71	33.96
	Dec	0.20	36.99	22.13	0.10	81.79	23.13		Dec	2.13	37.81	22.48	1.39	52.81	32.48
2009	Jan	0.20	36.96	20.01	0.10	81.76	21.01	2009	Jan	2.25	37.75	21.03	1.47	52.75	31.03
	Feb	0.20	36.64	20.13	0.10	81.44	21.13		Feb	2.25	37.83	19.72	1.47	52.83	29.72
	Mar	0.20	36.58	21.32	0.10	81.38	22.32		Mar	2.25	37.90	19.67	1.47	52.90	29.67
	Apr	0.20	36.61	23.01	0.10	81.41	24.01		Apr	2.25	37.44	21.19	1.47	52.44	31.19
	May	0.20	36.68	25.36	0.10	81.48	26.36		May	2.25	37.43	23.22	1.47	52.43	33.22
	Jun	0.20	36.83	27.30	0.10	81.63	28.30		Jun	2.25	37.35	23.37	1.47	52.35	33.37
	Jul	0.20	37.02	29.61	0.10	81.82	30.61		Jul	2.25	37.36	25.97	1.47	52.36	35.97
	Aug	0.20	37.09	29.58	0.10	81.89	30.58		Aug	2.25	37.35	25.74	1.47	52.35	35.74
	Sep	0.20	37.14	28.63	0.10	81.94	29.63		Sep	2.25	37.52	25.73	1.47	52.52	35.73
	Oct	0.20	37.10	27.73	0.10	81.90	28.73		Oct	2.25	37.56	24.59	1.47	52.56	34.59
	Nov	0.20	37.11	24.99	0.10	81.91	25.99		Nov	2.25	37.61	24.16	1.47	52.61	34.16
	Dec	0.20	37.02	21.91	0.10	81.82	22.91		Dec	2.25	37.69	22.82	1.47	52.69	32.82
2010	Jan	0.20	36.95	20.32	0.10	81.75	21.32	2010	Jan	2.36	37.71	20.93	1.55	52.71	30.93
	Feb	0.20	36.75	19.59	0.10	81.55	20.59		Feb	2.36	37.76	19.74	1.55	52.76	29.74
	Mar	0.20	36.66	20.92	0.10	81.46	21.92		Mar	2.36	37.81	19.70	1.55	52.81	29.70
	Apr	0.20	36.70	23.23	0.10	81.50	24.23		Apr	2.36	37.70	20.42	1.55	52.70	30.42
	May	0.20	36.77	25.41	0.10	81.57	26.41		May	2.36	37.68	21.88	1.55	52.68	31.88
	Jun	0.20	36.92	27.50	0.10	81.72	28.50		Jun	2.36	37.49	23.07	1.55	52.49	33.07
	Jul	0.20	37.07	29.06	0.10	81.87	30.06		Jul	2.36	37.42	24.68	1.55	52.42	34.68
	Aug	0.20	37.19	29.37	0.10	81.99	30.37		Aug	2.36	37.69	25.52	1.55	52.69	35.52
	Sep	0.20	37.23	28.82	0.10	82.03	29.82		Sep	2.36	37.65	25.69	1.55	52.65	35.69
	Oct	0.20	37.17	27.48	0.10	81.97	28.48		Oct	2.36	37.83	25.33	1.55	52.83	35.33
	Nov	0.20	37.01	24.87	0.10	81.81	25.87		Nov	2.36	37.82	24.25	1.55	52.82	34.25
	Dec	0.20	37.02	21.83	0.10	81.82	22.83		Dec	2.36	37.98	22.92	1.55	52.98	32.92
2011	Jan	0.20	36.85	19.28	0.10	81.65	20.28	2011	Jan	2.48	37.98	21.41	1.62	52.98	31.41
	Feb	0.20	36.70	19.59	0.10	81.50	20.59		Feb	2.48	38.01	20.20	1.62	53.01	30.20
	Mar	0.20	36.65	21.05	0.10	81.45	22.05		Mar	2.48	37.94	19.76	1.62	52.94	29.76
	Apr	0.20	36.72	23.49	0.10	81.52	24.49		Apr	2.48	37.49	20.59	1.62	52.49	30.59
	May	0.20	36.77	26.47	0.10	81.57	27.47		May	2.48	37.33	23.63	1.62	52.33	33.63
	Jun	0.20	36.88	28.51	0.10	81.68	29.51		Jun	2.48	37.31	24.75	1.62	52.31	34.75
	Jul	0.20	36.98	29.15	0.10	81.78	30.15		Jul	2.48	37.51	24.68	1.62	52.51	34.68
	Aug	0.20	37.11	29.45	0.10	81.91	30.45		Aug	2.48	37.60	25.86	1.62	52.60	35.86
	Sep	0.20	37.21	28.77	0.10	82.01	29.77		Sep	2.48	37.80	25.77	1.62	52.80	35.77
	Oct	0.20	37.18	27.84	0.10	81.98	28.84		Oct	2.48	37.78	25.55	1.62	52.78	35.55
	Nov	0.20	37.18	25.38	0.10	81.98	26.38		Nov	2.48	37.72	24.38	1.62	52.72	34.38
	Dec	0.20	37.12	22.78	0.10	81.92	23.78		Dec	2.48	37.84	22.85	1.62	52.84	32.85
2012	Jan	0.20	36.93	20.10	0.10	81.73	21.10	2012	Jan	2.60	37.98	21.37	1.70	52.98	31.37
	Feb	0.20	36.80	19.78	0.10	81.60	20.78		Feb	2.60	38.03	20.03	1.70	53.03	30.03
	Mar	0.20	36.68	20.74	0.10	81.48	21.74		Mar	2.60	37.82	20.22	1.70	52.82	30.22
	Apr	0.20	36.70	22.91	0.10	81.50	23.91		Apr	2.60	37.33	20.96	1.70	52.33	30.96
	May	0.20	36.81	26.13	0.10	81.61	27.13		May	2.60	37.46	23.13	1.70	52.46	33.13
	Jun	0.20	36.98	28.38	0.10	81.78	29.38		Jun	2.60	37.34	23.61	1.70	52.34	33.61
	Jul	0.20	37.11	30.07	0.10	81.91	31.07		Jul	2.60	37.48	25.41	1.70	52.48	35.41
	Aug	0.20	37.23	30.05	0.10	82.03	31.05		Aug	2.60	37.61	26.31	1.70	52.61	36.31
	Sep	0.20	37.21	29.00	0.10	82.01	30.00		Sep	2.60	37.76	25.64	1.70	52.76	35.64
	Oct	0.20	37.14	27.83	0.10	81.94	28.83		Oct	2.60	37.75	25.30	1.70	52.75	35.30
	Nov	0.20	37.01	25.41	0.10	81.81	26.41		Nov	2.60	37.77	24.37	1.70	52.77	34.37
	Dec	0.20	36.87	22.25	0.10	81.67	23.25		Dec	2.60	37.71	23.33	1.70	52.71	33.33
2013	Jan	0.20	36.77	20.00	0.10	81.57	21.00	2013	Jan	2.72	37.80	21.50	1.78	52.80	31.50
	Feb	0.20	36.59	19.99	0.10	81.39	20.99		Feb	2.72	37.88	20.10	1.78	52.88	30.10

	Mar	0.20	36.58	21.05	0.10	81.38	22.05		Mar	2.72	37.92	20.23	1.78	52.92	30.23
	Apr	0.20	36.61	23.36	0.10	81.41	24.36		Apr	2.72	37.58	21.47	1.78	52.58	31.47
	May	0.20	36.68	25.27	0.10	81.48	26.27		May	2.72	37.58	22.97	1.78	52.58	32.97
	Jun	0.20	36.84	27.62	0.10	81.64	28.62		Jun	2.72	37.37	24.08	1.78	52.37	34.08
	Jul	0.20	37.04	29.53	0.10	81.84	30.53		Jul	2.72	37.44	25.84	1.78	52.44	35.84
	Aug	0.20	37.13	29.64	0.10	81.93	30.64		Aug	2.72	37.97	23.90	1.78	52.97	33.90
	Sep	0.20	37.15	29.11	0.10	81.95	30.11		Sep	2.72	37.91	25.47	1.78	52.91	35.47
	Oct	0.20	37.21	27.85	0.10	82.01	28.85		Oct	2.72	37.84	25.27	1.78	52.84	35.27
	Nov	0.20	37.31	25.16	0.10	82.11	26.16		Nov	2.72	37.80	24.47	1.78	52.80	34.47
	Dec	0.20	37.15	22.46	0.10	81.95	23.46		Dec	2.72	37.89	22.90	1.78	52.89	32.90
2014	Jan	0.20	37.01	19.30	0.10	81.81	20.30	2014	Jan	2.84	37.93	21.21	1.85	52.93	31.21
	Feb	0.20	36.70	20.10	0.10	81.50	21.10		Feb	2.84	37.99	20.02	1.85	52.99	30.02
	Mar	0.20	36.66	21.04	0.10	81.46	22.04		Mar	2.84	38.07	20.11	1.85	53.07	30.11
	Apr	0.20	36.71	23.66	0.10	81.51	24.66		Apr	2.84	37.54	21.29	1.85	52.54	31.29
	May	0.20	36.79	25.83	0.10	81.59	26.83		May	2.84	37.51	22.65	1.85	52.51	32.65
	Jun	0.20	36.93	27.90	0.10	81.73	28.90		Jun	2.84	37.52	23.36	1.85	52.52	33.36
	Jul	0.20	37.04	29.07	0.10	81.84	30.07		Jul	2.84	37.48	25.68	1.85	52.48	35.68
	Aug	0.20	37.17	29.65	0.10	81.97	30.65		Aug	2.84	37.59	25.35	1.85	52.59	35.35
	Sep	0.20	37.22	28.85	0.10	82.02	29.85		Sep	2.84	37.87	25.74	1.85	52.87	35.74
	Oct	0.20	37.18	27.42	0.10	81.98	28.42		Oct	2.84	37.90	25.63	1.85	52.90	35.63
	Nov	0.20	37.08	24.94	0.10	81.88	25.94		Nov	2.84	37.78	23.97	1.85	52.78	33.97
	Dec	0.20	36.92	22.08	0.10	81.72	23.08		Dec	2.84	37.92	22.50	1.85	52.92	32.50
2015	Jan	0.20	36.83	19.93	0.10	81.63	20.93	2015	Jan	2.95	37.93	21.00	1.93	52.93	31.00
	Feb	0.20	36.70	19.66	0.10	81.50	20.66		Feb	2.95	38.02	20.00	1.93	53.02	30.00
	Mar	0.20	36.66	21.04	0.10	81.46	22.04		Mar	2.95	38.07	20.11	1.93	53.07	30.11
	Apr	0.20	36.68	23.51	0.10	81.48	24.51		Apr	2.95	37.76	21.58	1.93	52.76	31.58
	May	0.20	36.76	26.12	0.10	81.56	27.12		May	2.95	37.42	22.31	1.93	52.42	32.31
	Jun	0.20	36.84	27.98	0.10	81.64	28.98		Jun	2.95	37.49	23.11	1.93	52.49	33.11
	Jul	0.20	37.04	26.54	0.10	81.84	27.54		Jul	2.95	37.56	23.71	1.93	52.56	33.71
	Aug	0.20	37.15	29.72	0.10	81.95	30.72		Aug	2.95	37.75	25.63	1.93	52.75	35.63
	Sep	0.20	37.22	28.85	0.10	82.02	29.85		Sep	2.95	37.93	25.71	1.93	52.93	35.71
	Oct	0.20	37.22	27.85	0.10	82.02	28.85		Oct	2.95	38.05	25.09	1.93	53.05	35.09
	Nov	0.20	37.16	25.25	0.10	81.96	26.25		Nov	2.95	37.92	24.26	1.93	52.92	34.26
	Dec	0.20	37.13	22.00	0.10	81.93	23.00		Dec	2.95	38.08	22.95	1.93	53.08	32.95

Iran (Asaluyeh) RO		Inflow			Outflow			Iran (Bushehr) RO		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	2.31	37.75	20.84	1.15	82.55	21.84	2004	Jan	0.38	37.75	19.06	0.19	82.55	20.06
	Feb	2.31	37.81	19.40	1.15	82.61	20.40		Feb	0.38	37.67	17.87	0.19	82.47	18.87
	Mar	2.31	37.89	19.35	1.15	82.69	20.35		Mar	0.38	37.70	18.34	0.19	82.50	19.34
	Apr	2.31	37.68	20.91	1.15	82.48	21.91		Apr	0.38	37.85	20.93	0.19	82.65	21.93
	May	2.31	37.67	22.23	1.15	82.47	23.23		May	0.38	37.95	23.39	0.19	82.75	24.39
	Jun	2.31	37.58	23.49	1.15	82.38	24.49		Jun	0.38	37.98	23.79	0.19	82.78	24.79
	Jul	2.31	37.59	24.07	1.15	82.39	25.07		Jul	0.38	37.77	25.57	0.19	82.57	26.57
	Aug	2.31	37.73	26.02	1.15	82.53	27.02		Aug	0.38	37.57	28.15	0.19	82.37	29.15
	Sep	2.31	37.69	25.31	1.15	82.49	26.31		Sep	0.38	37.63	28.10	0.19	82.43	29.10
	Oct	2.31	37.67	25.32	1.15	82.47	26.32		Oct	0.38	37.72	27.73	0.19	82.52	28.73
	Nov	2.31	37.70	24.36	1.15	82.50	25.36		Nov	0.38	37.79	25.20	0.19	82.59	26.20
	Dec	2.31	37.73	22.75	1.15	82.53	23.75		Dec	0.38	37.84	21.49	0.19	82.64	22.49
2005	Jan	2.45	37.73	20.73	1.22	82.53	21.73	2005	Jan	0.41	37.82	19.12	0.20	82.62	20.12
	Feb	2.45	37.80	19.42	1.22	82.60	20.42		Feb	0.41	37.71	17.72	0.20	82.51	18.72
	Mar	2.45	37.92	19.67	1.22	82.72	20.67		Mar	0.41	37.69	18.60	0.20	82.49	19.60
	Apr	2.45	37.76	20.51	1.22	82.56	21.51		Apr	0.41	37.75	20.23	0.20	82.55	21.23
	May	2.45	37.46	22.08	1.22	82.26	23.08		May	0.41	37.94	23.43	0.20	82.74	24.43
	Jun	2.45	37.46	23.28	1.22	82.26	24.28		Jun	0.41	37.91	25.21	0.20	82.71	26.21
	Jul	2.45	37.44	23.33	1.22	82.24	24.33		Jul	0.41	37.63	25.11	0.20	82.43	26.11
	Aug	2.45	37.59	25.76	1.22	82.39	26.76		Aug	0.41	37.47	28.09	0.20	82.27	29.09
	Sep	2.45	37.82	25.25	1.22	82.62	26.25		Sep	0.41	37.55	28.12	0.20	82.35	29.12
	Oct	2.45	37.71	24.64	1.22	82.51	25.64		Oct	0.41	37.64	26.72	0.20	82.44	27.72
	Nov	2.45	37.70	23.93	1.22	82.50	24.93		Nov	0.41	37.78	24.98	0.20	82.58	25.98
	Dec	2.45	37.85	22.65	1.22	82.65	23.65		Dec	0.41	37.85	21.70	0.20	82.65	22.70

2006	Jan	2.58	37.90	21.01	1.29	82.70	22.01	2006	Jan	0.44	37.82	19.08	0.22	82.62	20.08
	Feb	2.58	38.00	19.63	1.29	82.80	20.63		Feb	0.44	37.86	17.76	0.22	82.66	18.76
	Mar	2.58	37.98	19.47	1.29	82.78	20.47		Mar	0.44	37.85	18.54	0.22	82.65	19.54
	Apr	2.58	37.87	21.03	1.29	82.67	22.03		Apr	0.44	37.91	21.40	0.22	82.71	22.40
	May	2.58	37.52	22.43	1.29	82.32	23.43		May	0.44	38.06	23.51	0.22	82.86	24.51
	Jun	2.58	37.46	23.19	1.29	82.26	24.19		Jun	0.44	38.10	23.69	0.22	82.90	24.69
	Jul	2.58	37.36	24.73	1.29	82.16	25.73		Jul	0.44	37.56	25.95	0.22	82.36	26.95
	Aug	2.58	37.50	26.47	1.29	82.30	27.47		Aug	0.44	37.44	27.25	0.22	82.24	28.25
	Sep	2.58	37.78	25.65	1.29	82.58	26.65		Sep	0.44	37.54	28.50	0.22	82.34	29.50
	Oct	2.58	37.73	25.52	1.29	82.53	26.52		Oct	0.44	37.78	27.34	0.22	82.58	28.34
	Nov	2.58	37.79	23.96	1.29	82.59	24.96		Nov	0.44	37.88	25.12	0.22	82.68	26.12
	Dec	2.58	37.91	22.46	1.29	82.71	23.46		Dec	0.44	37.89	22.22	0.22	82.69	23.22
2007	Jan	2.72	37.92	20.82	1.36	82.72	21.82	2007	Jan	0.46	37.89	19.14	0.23	82.69	20.14
	Feb	2.72	37.95	19.67	1.36	82.75	20.67		Feb	0.46	37.92	17.94	0.23	82.72	18.94
	Mar	2.72	37.91	19.46	1.36	82.71	20.46		Mar	0.46	37.85	18.57	0.23	82.65	19.57
	Apr	2.72	37.66	20.93	1.36	82.46	21.93		Apr	0.46	37.90	21.47	0.23	82.70	22.47
	May	2.72	37.62	22.87	1.36	82.42	23.87		May	0.46	38.03	23.57	0.23	82.83	24.57
	Jun	2.72	37.33	24.76	1.36	82.13	25.76		Jun	0.46	37.91	25.67	0.23	82.71	26.67
	Jul	2.72	37.39	25.73	1.36	82.19	26.73		Jul	0.46	37.50	26.78	0.23	82.30	2.78
	Aug	2.72	37.47	26.34	1.36	82.27	27.34		Aug	0.46	37.35	27.53	0.23	82.15	28.53
	Sep	2.72	37.68	25.89	1.36	82.48	26.89		Sep	0.46	37.42	28.54	0.23	82.22	29.54
	Oct	2.72	37.64	25.76	1.36	82.44	26.76		Oct	0.46	37.57	27.57	0.23	82.37	28.57
	Nov	2.72	37.74	24.23	1.36	82.54	25.23		Nov	0.46	37.68	25.51	0.23	82.48	26.51
	Dec	2.72	37.80	23.04	1.36	82.60	24.04		Dec	0.46	37.79	21.41	0.23	82.59	22.41
2008	Jan	2.85	37.78	21.11	1.43	82.58	22.11	2008	Jan	0.49	37.83	19.22	0.25	82.63	20.22
	Feb	2.85	37.92	19.78	1.43	82.72	20.78		Feb	0.49	37.83	17.85	0.25	82.63	18.85
	Mar	2.85	37.88	19.38	1.43	82.68	20.38		Mar	0.49	37.78	18.23	0.25	82.58	19.23
	Apr	2.85	37.61	21.44	1.43	82.41	22.44		Apr	0.49	37.74	21.42	0.25	82.54	22.42
	May	2.85	37.43	23.22	1.43	82.23	24.22		May	0.49	37.94	23.20	0.25	82.74	24.20
	Jun	2.85	37.38	24.49	1.43	82.18	25.49		Jun	0.49	37.92	25.05	0.25	82.72	26.05
	Jul	2.85	37.32	25.84	1.43	82.12	26.84		Jul	0.49	37.70	25.86	0.25	82.50	26.86
	Aug	2.85	37.61	25.59	1.43	82.41	26.59		Aug	0.49	37.38	27.26	0.25	82.18	28.26
	Sep	2.85	37.66	26.33	1.43	82.46	27.33		Sep	0.49	37.49	28.80	0.25	82.29	29.80
	Oct	2.85	37.62	25.09	1.43	82.42	26.09		Oct	0.49	37.58	26.04	0.25	82.38	27.04
	Nov	2.85	37.71	23.96	1.43	82.51	24.96		Nov	0.49	37.82	24.88	0.25	82.62	25.88
	Dec	2.85	37.81	22.48	1.43	82.61	23.48		Dec	0.49	37.89	21.49	0.25	82.69	22.49
2009	Jan	2.99	37.75	21.03	1.50	82.55	22.03	2009	Jan	0.52	37.84	19.16	0.26	82.64	20.16
	Feb	2.99	37.83	19.72	1.50	82.63	20.72		Feb	0.52	37.83	17.85	0.26	82.63	18.85
	Mar	2.99	37.90	19.67	1.50	82.70	20.67		Mar	0.52	37.75	18.44	0.26	82.55	19.44
	Apr	2.99	37.44	21.19	1.50	82.24	22.19		Apr	0.52	37.78	20.92	0.26	82.58	21.92
	May	2.99	37.43	23.22	1.50	82.23	24.22		May	0.52	37.78	24.24	0.26	82.58	25.24
	Jun	2.99	37.35	23.37	1.50	82.15	24.37		Jun	0.52	37.71	24.33	0.26	82.51	25.33
	Jul	2.99	37.36	25.97	1.50	82.16	26.97		Jul	0.52	37.51	26.18	0.26	82.31	27.18
	Aug	2.99	37.35	25.74	1.50	82.15	26.74		Aug	0.52	37.50	26.10	0.26	82.30	27.10
	Sep	2.99	37.52	25.73	1.50	82.32	26.73		Sep	0.52	37.36	27.17	0.26	82.16	28.17
	Oct	2.99	37.56	24.59	1.50	82.36	25.59		Oct	0.52	37.52	25.99	0.26	82.32	26.99
	Nov	2.99	37.61	24.16	1.50	82.41	25.16		Nov	0.52	37.62	24.96	0.26	82.42	25.96
	Dec	2.99	37.69	22.82	1.50	82.49	23.82		Dec	0.52	37.69	21.62	0.26	82.49	22.62
2010	Jan	3.13	37.71	20.93	1.56	82.51	21.93	2010	Jan	0.55	37.75	19.02	0.27	82.55	20.02
	Feb	3.13	37.76	19.74	1.56	82.56	20.74		Feb	0.55	37.74	17.88	0.27	82.54	18.88
	Mar	3.13	37.81	19.70	1.56	82.61	20.70		Mar	0.55	37.62	18.83	0.27	82.42	19.83
	Apr	3.13	37.70	20.42	1.56	82.50	21.42		Apr	0.55	37.79	20.28	0.27	82.59	21.28
	May	3.13	37.68	21.88	1.56	82.48	22.88		May	0.55	37.97	22.39	0.27	82.77	23.39
	Jun	3.13	37.49	23.07	1.56	82.29	24.07		Jun	0.55	38.07	22.01	0.27	82.87	23.01
	Jul	3.13	37.42	24.68	1.56	82.22	25.68		Jul	0.55	37.76	24.02	0.27	82.56	25.02
	Aug	3.13	37.69	25.52	1.56	82.49	26.52		Aug	0.55	37.45	27.66	0.27	82.25	28.66
	Sep	3.13	37.65	25.69	1.56	82.45	26.69		Sep	0.55	37.59	28.60	0.27	82.39	29.60
	Oct	3.13	37.83	25.33	1.56	82.63	26.33		Oct	0.55	37.75	27.42	0.27	82.55	28.42
	Nov	3.13	37.82	24.25	1.56	82.62	25.25		Nov	0.55	37.88	24.99	0.27	82.68	25.99
	Dec	3.13	37.98	22.92	1.56	82.78	23.92		Dec	0.55	37.89	22.03	0.27	82.69	23.03
2011	Jan	3.26	37.98	21.41	1.63	82.78	22.41	2011	Jan	0.57	37.93	19.17	0.29	82.73	20.17
	Feb	3.26	38.01	20.20	1.63	82.81	21.20		Feb	0.57	37.93	17.63	0.29	82.73	18.63
	Mar	3.26	37.94	19.76	1.63	82.74	20.76		Mar	0.57	37.86	18.64	0.29	82.66	19.64
	Apr	3.26	37.49	20.59	1.63	82.29	21.59		Apr	0.57	37.88	19.96	0.29	82.68	20.96

	May	3.26	37.33	23.63	1.63	82.13	24.63		May	0.57	37.85	23.82	0.29	82.65	24.82
	Jun	3.26	37.31	24.75	1.63	82.11	25.75		Jun	0.57	37.81	24.19	0.29	82.61	25.19
	Jul	3.26	37.51	24.68	1.63	82.31	25.68		Jul	0.57	37.51	24.79	0.29	82.31	25.79
	Aug	3.26	37.60	25.86	1.63	82.40	26.86		Aug	0.57	37.37	28.02	0.29	82.17	29.02
	Sep	3.26	37.80	25.77	1.63	82.60	26.77		Sep	0.57	37.57	28.15	0.29	82.37	29.15
	Oct	3.26	37.78	25.55	1.63	82.58	26.55		Oct	0.57	37.70	26.69	0.29	82.50	27.69
	Nov	3.26	37.72	24.38	1.63	82.52	25.38		Nov	0.57	37.83	24.44	0.29	82.63	25.44
2012	Dec	3.26	37.84	22.85	1.63	82.64	23.85	2012	Dec	0.57	37.84	21.66	0.29	82.64	22.66
	Jan	3.40	37.98	21.37	1.70	82.78	22.37		Jan	0.60	37.83	18.84	0.30	82.63	19.84
	Feb	3.40	38.03	20.03	1.70	82.83	21.03		Feb	0.60	37.79	17.50	0.30	82.59	18.50
	Mar	3.40	37.82	20.22	1.70	82.62	21.22		Mar	0.60	37.79	18.77	0.30	82.59	19.77
	Apr	3.40	37.33	20.96	1.70	82.13	21.96		Apr	0.60	37.90	21.21	0.30	82.70	22.21
	May	3.40	37.46	23.13	1.70	82.26	24.13		May	0.60	37.93	24.09	0.30	82.73	25.09
	Jun	3.40	37.34	23.61	1.70	82.14	24.61		Jun	0.60	37.81	22.69	0.30	82.61	23.69
	Jul	3.40	37.48	25.41	1.70	82.28	26.41		Jul	0.60	37.54	26.25	0.30	82.34	27.25
	Aug	3.40	37.61	26.31	1.70	82.41	27.31		Aug	0.60	37.36	27.94	0.30	82.16	28.94
	Sep	3.40	37.76	25.64	1.70	82.56	26.64		Sep	0.60	37.50	27.91	0.30	82.30	28.91
	Oct	3.40	37.75	25.30	1.70	82.55	26.30		Oct	0.60	37.71	27.42	0.30	82.51	28.42
	Nov	3.40	37.77	24.37	1.70	82.57	25.37		Nov	0.60	37.81	25.52	0.30	82.61	26.52
2013	Dec	3.40	37.71	23.33	1.70	82.51	24.33	2013	Dec	0.60	37.90	21.96	0.30	82.70	22.96
	Jan	3.54	37.80	21.50	1.77	82.60	22.50		Jan	0.63	37.85	19.32	0.31	82.65	20.32
	Feb	3.54	37.88	20.10	1.77	82.68	21.10		Feb	0.63	37.74	17.81	0.31	82.54	18.81
	Mar	3.54	37.92	20.23	1.77	82.72	21.23		Mar	0.63	37.75	18.63	0.31	82.55	19.63
	Apr	3.54	37.58	21.47	1.77	82.38	22.47		Apr	0.63	37.80	20.42	0.31	82.60	21.42
	May	3.54	37.58	22.97	1.77	82.38	23.97		May	0.63	37.99	23.68	0.31	82.79	24.68
	Jun	3.54	37.37	24.08	1.77	82.17	25.08		Jun	0.63	37.95	23.28	0.31	82.75	24.28
	Jul	3.54	37.44	25.84	1.77	82.24	26.84		Jul	0.63	37.66	25.96	0.31	82.46	26.96
	Aug	3.54	37.97	23.90	1.77	82.77	24.90		Aug	0.63	37.41	25.24	0.31	82.21	26.24
	Sep	3.54	37.91	25.47	1.77	82.71	26.47		Sep	0.63	37.60	27.36	0.31	82.40	28.36
	Oct	3.54	37.84	25.27	1.77	82.64	26.27		Oct	0.63	37.72	25.57	0.31	82.52	26.57
	Nov	3.54	37.80	24.47	1.77	82.60	25.47		Nov	0.63	37.92	23.95	0.31	82.72	24.95
2014	Dec	3.54	37.89	22.90	1.77	82.69	23.90	2014	Dec	0.63	37.96	21.77	0.31	82.76	22.77
	Jan	3.67	37.93	21.21	1.84	82.73	22.21		Jan	0.65	37.98	19.01	0.33	82.78	20.01
	Feb	3.67	37.99	20.02	1.84	82.79	21.02		Feb	0.65	37.83	17.70	0.33	82.63	18.70
	Mar	3.67	38.07	20.11	1.84	82.87	21.11		Mar	0.65	37.92	18.91	0.33	82.72	19.91
	Apr	3.67	37.54	21.29	1.84	82.34	22.29		Apr	0.65	37.93	21.13	0.33	82.73	22.13
	May	3.67	37.51	22.65	1.84	82.31	23.65		May	0.65	38.09	23.74	0.33	82.89	24.74
	Jun	3.67	37.52	23.36	1.84	82.32	24.36		Jun	0.65	37.96	23.89	0.33	82.76	24.89
	Jul	3.67	37.48	25.68	1.84	82.28	26.68		Jul	0.65	37.74	25.36	0.33	82.54	26.36
	Aug	3.67	37.59	25.35	1.84	82.39	26.35		Aug	0.65	37.55	26.26	0.33	82.35	27.26
	Sep	3.67	37.87	25.74	1.84	82.67	26.74		Sep	0.65	37.55	28.29	0.33	82.35	29.29
	Oct	3.67	37.90	25.63	1.84	82.70	26.63		Oct	0.65	37.75	26.73	0.33	82.55	27.73
	Nov	3.67	37.78	23.97	1.84	82.58	24.97		Nov	0.65	37.96	24.43	0.33	82.76	25.43
2015	Dec	3.67	37.92	22.50	1.84	82.72	23.50	2015	Dec	0.65	38.05	21.66	0.33	82.85	22.66
	Jan	3.81	37.93	21.00	1.90	82.73	22.00		Jan	0.68	38.04	18.92	0.34	82.84	19.92
	Feb	3.81	38.02	20.00	1.90	82.82	21.00		Feb	0.68	37.96	17.76	0.34	82.76	18.76
	Mar	3.81	38.07	20.11	1.90	82.87	21.11		Mar	0.68	37.92	18.91	0.34	82.72	19.91
	Apr	3.81	37.76	21.58	1.90	82.56	22.58		Apr	0.68	37.99	21.01	0.34	82.79	22.01
	May	3.81	37.42	22.31	1.90	82.22	23.31		May	0.68	38.10	21.43	0.34	82.90	22.43
	Jun	3.81	37.49	23.11	1.90	82.29	24.11		Jun	0.68	37.99	24.14	0.34	82.79	25.14
	Jul	3.81	37.56	23.71	1.90	82.36	24.71		Jul	0.68	37.67	23.61	0.34	82.47	24.61
	Aug	3.81	37.75	25.63	1.90	82.55	26.63		Aug	0.68	37.45	28.19	0.34	82.25	29.19
	Sep	3.81	37.93	25.71	1.90	82.73	26.71		Sep	0.68	37.60	28.37	0.34	82.40	29.37
	Oct	3.81	38.05	25.09	1.90	82.85	26.09		Oct	0.68	37.75	27.81	0.34	82.55	28.81
	Nov	3.81	37.92	24.26	1.90	82.72	25.26		Nov	0.68	37.89	24.85	0.34	82.69	25.85
	Dec	3.81	38.08	22.95	1.90	82.88	23.95		Dec	0.68	37.99	21.65	0.34	82.79	22.65

Iran (Bushehr) MED		Inflow			Outflow			Iran (Bandar Linge) MED		Inflow			Outflow		
		F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)			F.R (m ³ /s)	S (ppt)	T (°C)	F.R (m ³ /s)	S (ppt)	T (°C)
2004	Jan	0.20	37.75	19.06	0.10	52.75	29.06	2004	Jan	0.50	37.70	20.62	0.30	52.70	30.62
	Feb	0.20	37.67	17.87	0.10	52.67	27.87		Feb	0.50	37.48	19.51	0.30	52.48	29.51

	Mar	0.20	37.70	18.34	0.10	52.70	28.34		Mar	0.50	37.32	19.86	0.30	52.32	29.86
	Apr	0.20	37.85	20.93	0.10	52.85	30.93		Apr	0.50	37.21	21.16	0.30	52.21	31.16
	May	0.20	37.95	23.39	0.10	52.95	33.39		May	0.50	37.19	22.66	0.30	52.19	32.66
	Jun	0.20	37.98	23.79	0.10	52.98	33.79		Jun	0.50	37.17	24.52	0.30	52.17	34.52
	Jul	0.20	37.77	25.57	0.10	52.77	35.57		Jul	0.50	37.26	26.41	0.30	52.26	36.41
	Aug	0.20	37.57	28.15	0.10	52.57	38.15		Aug	0.50	37.30	27.26	0.30	52.30	37.26
	Sep	0.20	37.63	28.10	0.10	52.63	38.10		Sep	0.50	37.29	26.71	0.30	52.29	36.71
	Oct	0.20	37.72	27.73	0.10	52.72	37.73		Oct	0.50	37.23	25.90	0.30	52.23	35.90
	Nov	0.20	37.79	25.20	0.10	52.79	35.20		Nov	0.50	37.25	24.42	0.30	52.25	34.42
	Dec	0.20	37.84	21.49	0.10	52.84	31.49		Dec	0.50	37.29	22.63	0.30	52.29	32.63
2005	Jan	0.20	37.82	19.12	0.10	52.82	29.12	2005	Jan	0.50	37.58	20.66	0.30	52.58	30.66
	Feb	0.20	37.71	17.72	0.10	52.71	27.72		Feb	0.50	37.41	19.43	0.30	52.41	29.43
	Mar	0.20	37.69	18.60	0.10	52.69	28.60		Mar	0.50	37.33	19.86	0.30	52.33	29.86
	Apr	0.20	37.75	20.23	0.10	52.75	30.23		Apr	0.50	37.21	21.12	0.30	52.21	31.12
	May	0.20	37.94	23.43	0.10	52.94	33.43		May	0.50	37.15	22.50	0.30	52.15	32.50
	Jun	0.20	37.91	25.21	0.10	52.91	35.21		Jun	0.50	37.13	24.78	0.30	52.13	34.78
	Jul	0.20	37.63	25.11	0.10	52.63	35.11		Jul	0.50	37.14	27.04	0.30	52.14	37.04
	Aug	0.20	37.47	28.09	0.10	52.47	38.09		Aug	0.50	37.32	27.87	0.30	52.32	37.87
	Sep	0.20	37.55	28.12	0.10	52.55	38.12		Sep	0.50	37.34	27.21	0.30	52.34	37.21
	Oct	0.20	37.64	26.72	0.10	52.64	36.72		Oct	0.50	37.25	26.32	0.30	52.25	36.32
	Nov	0.20	37.78	24.98	0.10	52.78	34.98		Nov	0.50	37.27	24.80	0.30	52.27	34.80
	Dec	0.20	37.85	21.70	0.10	52.85	31.70		Dec	0.50	37.43	22.88	0.30	52.43	32.88
2006	Jan	0.20	37.82	19.08	0.10	52.82	29.08	2006	Jan	0.50	37.57	21.11	0.30	52.57	31.11
	Feb	0.20	37.86	17.76	0.10	52.86	27.76		Feb	0.50	37.54	19.70	0.30	52.54	29.70
	Mar	0.20	37.85	18.54	0.10	52.85	28.54		Mar	0.50	37.33	19.71	0.30	52.33	29.71
	Apr	0.20	37.91	21.40	0.10	52.91	31.40		Apr	0.50	37.27	21.34	0.30	52.27	31.34
	May	0.20	38.06	23.51	0.10	53.06	33.51		May	0.50	37.18	22.15	0.30	52.18	32.15
	Jun	0.20	38.10	23.69	0.10	53.10	33.69		Jun	0.50	37.00	25.25	0.30	52.00	35.25
	Jul	0.20	37.56	25.95	0.10	52.56	35.95		Jul	0.50	37.12	25.78	0.30	52.12	35.78
	Aug	0.20	37.44	27.25	0.10	52.44	37.25		Aug	0.50	37.28	27.59	0.30	52.28	37.59
	Sep	0.20	37.54	28.50	0.10	52.54	38.50		Sep	0.50	37.40	27.29	0.30	52.40	37.29
	Oct	0.20	37.78	27.34	0.10	52.78	37.34		Oct	0.50	37.33	26.55	0.30	52.33	36.55
	Nov	0.20	37.88	25.12	0.10	52.88	35.12		Nov	0.50	37.31	24.94	0.30	52.31	34.94
	Dec	0.20	37.89	22.22	0.10	52.89	32.22		Dec	0.50	37.37	22.57	0.30	52.37	32.57
2007	Jan	0.20	37.89	19.14	0.10	52.89	29.14	2007	Jan	0.50	37.57	20.73	0.30	52.57	30.73
	Feb	0.20	37.92	17.94	0.10	52.92	27.94		Feb	0.50	37.57	19.57	0.30	52.57	29.57
	Mar	0.20	37.85	18.57	0.10	52.85	28.57		Mar	0.50	37.37	19.51	0.30	52.37	29.51
	Apr	0.20	37.90	21.47	0.10	52.90	31.47		Apr	0.50	37.17	20.61	0.30	52.17	30.61
	May	0.20	38.03	23.57	0.10	53.03	33.57		May	0.50	36.98	23.07	0.30	51.98	33.07
	Jun	0.20	37.91	25.67	0.10	52.91	35.67		Jun	0.50	37.04	25.74	0.30	52.04	35.74
	Jul	0.20	37.50	26.78	0.10	52.50	36.78		Jul	0.50	37.07	27.14	0.30	52.07	37.14
	Aug	0.20	37.35	27.53	0.10	52.35	37.53		Aug	0.50	37.19	27.25	0.30	52.19	37.25
	Sep	0.20	37.42	28.54	0.10	52.42	38.54		Sep	0.50	37.30	26.82	0.30	52.30	36.82
	Oct	0.20	37.57	27.57	0.10	52.57	37.57		Oct	0.50	37.18	26.35	0.30	52.18	36.35
	Nov	0.20	37.68	25.51	0.10	52.68	35.51		Nov	0.50	37.19	24.75	0.30	52.19	34.75
	Dec	0.20	37.79	21.41	0.10	52.79	31.41		Dec	0.50	37.29	22.67	0.30	52.29	32.67
2008	Jan	0.20	37.83	19.22	0.10	52.83	29.22	2008	Jan	0.50	37.45	20.70	0.30	52.45	30.70
	Feb	0.20	37.83	17.85	0.10	52.83	27.85		Feb	0.50	37.55	19.47	0.30	52.55	29.47
	Mar	0.20	37.78	18.23	0.10	52.78	28.23		Mar	0.50	37.28	19.51	0.30	52.28	29.51
	Apr	0.20	37.74	21.42	0.10	52.74	31.42		Apr	0.50	37.05	21.43	0.30	52.05	31.43
	May	0.20	37.94	23.20	0.10	52.94	33.20		May	0.50	37.02	23.26	0.30	52.02	33.26
	Jun	0.20	37.92	25.05	0.10	52.92	35.05		Jun	0.50	37.03	24.85	0.30	52.03	34.85
	Jul	0.20	37.70	25.86	0.10	52.70	35.86		Jul	0.50	37.05	27.29	0.30	52.05	37.29
	Aug	0.20	37.38	27.26	0.10	52.38	37.26		Aug	0.50	37.27	27.76	0.30	52.27	37.76
	Sep	0.20	37.49	28.80	0.10	52.49	38.80		Sep	0.50	37.24	26.81	0.30	52.24	36.81
	Oct	0.20	37.58	26.04	0.10	52.58	36.04		Oct	0.50	37.28	26.19	0.30	52.28	36.19
	Nov	0.20	37.82	24.88	0.10	52.82	34.88		Nov	0.50	37.27	24.70	0.30	52.27	34.70
	Dec	0.20	37.89	21.49	0.10	52.89	31.49		Dec	0.50	37.35	22.83	0.30	52.35	32.83
2009	Jan	0.20	37.84	19.16	0.10	52.84	29.16	2009	Jan	0.50	37.63	21.05	0.30	52.63	31.05
	Feb	0.20	37.83	17.85	0.10	52.83	27.85		Feb	0.50	37.66	19.90	0.30	52.66	29.90
	Mar	0.20	37.75	18.44	0.10	52.75	28.44		Mar	0.50	37.11	20.21	0.30	52.11	30.21
	Apr	0.20	37.78	20.92	0.10	52.78	30.92		Apr	0.50	37.06	21.60	0.30	52.06	31.60
	May	0.20	37.78	24.24	0.10	52.78	34.24		May	0.50	37.04	24.21	0.30	52.04	34.21
	Jun	0.20	37.71	24.33	0.10	52.71	34.33		Jun	0.50	37.00	24.84	0.30	52.00	34.84

	Jul	0.20	37.51	26.18	0.10	52.51	36.18		Jul	0.50	37.11	27.11	0.30	52.11	37.11
	Aug	0.20	37.50	26.10	0.10	82.15	26.74		Aug	0.50	37.11	27.94	0.30	52.11	37.94
	Sep	0.20	37.36	27.17	0.10	52.36	37.17		Sep	0.50	37.27	27.24	0.30	52.27	37.24
	Oct	0.20	37.52	25.99	0.10	52.52	35.99		Oct	0.50	37.26	26.37	0.30	52.26	36.37
	Nov	0.20	37.62	24.96	0.10	52.62	34.96		Nov	0.50	37.40	24.87	0.30	52.40	34.87
2010	Dec	0.20	37.69	21.62	0.10	52.69	31.62	2010	Dec	0.50	37.42	22.88	0.30	52.42	32.88
	Jan	0.20	37.75	19.02	0.10	52.75	29.02		Jan	0.50	37.43	20.70	0.30	52.43	30.70
	Feb	0.20	37.74	17.88	0.10	52.74	27.88		Feb	0.50	37.45	19.63	0.30	52.45	29.63
	Mar	0.20	37.62	18.83	0.10	52.62	28.83		Mar	0.50	37.37	19.85	0.30	52.37	29.85
	Apr	0.20	37.79	20.28	0.10	52.79	30.28		Apr	0.50	37.14	21.10	0.30	52.14	31.10
	May	0.20	37.97	22.39	0.10	52.97	32.39		May	0.50	37.21	22.26	0.30	52.21	32.26
	Jun	0.20	38.07	22.01	0.10	53.07	32.01		Jun	0.50	37.09	25.00	0.30	52.09	35.00
	Jul	0.20	37.76	24.02	0.10	52.76	34.02		Jul	0.50	37.14	26.16	0.30	52.14	36.16
	Aug	0.20	37.45	27.66	0.10	52.45	37.66		Aug	0.50	37.42	27.19	0.30	52.42	37.19
	Sep	0.20	37.59	28.60	0.10	52.59	38.60		Sep	0.50	37.35	26.93	0.30	52.35	36.93
	Oct	0.20	37.75	27.42	0.10	52.75	37.42		Oct	0.50	37.36	26.48	0.30	52.36	36.48
	Nov	0.20	37.88	24.99	0.10	52.88	34.99		Nov	0.50	37.26	24.93	0.30	52.26	34.93
2011	Dec	0.20	37.89	22.03	0.10	52.89	32.03	2011	Dec	0.50	37.40	22.87	0.30	52.40	32.87
	Jan	0.20	37.93	19.17	0.10	52.93	29.17		Jan	0.50	37.63	21.23	0.30	52.63	31.23
	Feb	0.20	37.93	17.63	0.10	52.93	27.63		Feb	0.50	37.52	19.65	0.30	52.52	29.65
	Mar	0.20	37.86	18.64	0.10	52.86	28.64		Mar	0.50	37.26	19.68	0.30	52.26	29.68
	Apr	0.20	37.88	19.96	0.10	52.88	29.96		Apr	0.50	37.04	21.59	0.30	52.04	31.59
	May	0.20	37.85	23.82	0.10	52.85	33.82		May	0.50	37.04	24.25	0.30	52.04	34.25
	Jun	0.20	37.81	24.19	0.10	52.81	34.19		Jun	0.50	37.05	25.91	0.30	52.05	35.91
	Jul	0.20	37.51	24.79	0.10	52.51	34.79		Jul	0.50	37.11	26.67	0.30	52.11	36.67
	Aug	0.20	37.37	28.02	0.10	52.37	38.02		Aug	0.50	37.38	27.29	0.30	52.38	37.29
	Sep	0.20	37.57	28.15	0.10	52.57	38.15		Sep	0.50	37.58	26.90	0.30	52.58	36.90
	Oct	0.20	37.70	26.69	0.10	52.70	36.69		Oct	0.50	37.39	26.68	0.30	52.39	36.68
	Nov	0.20	37.83	24.44	0.10	52.83	34.44		Nov	0.50	37.37	25.06	0.30	52.37	35.06
2012	Dec	0.20	37.84	21.66	0.10	52.84	31.66	2012	Dec	0.50	37.59	23.26	0.30	52.59	33.26
	Jan	0.20	37.83	18.84	0.10	52.83	28.84		Jan	0.50	37.69	21.46	0.30	52.69	31.46
	Feb	0.20	37.79	17.50	0.10	52.79	27.50		Feb	0.50	37.51	19.85	0.30	52.51	29.85
	Mar	0.20	37.79	18.77	0.10	52.79	28.77		Mar	0.50	37.27	19.74	0.30	52.27	29.74
	Apr	0.20	37.90	21.21	0.10	52.90	31.21		Apr	0.50	37.12	21.28	0.30	52.12	31.28
	May	0.20	37.93	24.09	0.10	52.93	34.09		May	0.50	37.05	23.71	0.30	52.05	33.71
	Jun	0.20	37.81	22.69	0.10	52.81	32.69		Jun	0.50	37.03	25.57	0.30	52.03	35.57
	Jul	0.20	37.54	26.25	0.10	52.54	36.25		Jul	0.50	37.25	27.25	0.30	52.25	37.25
	Aug	0.20	37.36	27.94	0.10	52.36	37.94		Aug	0.50	37.37	27.34	0.30	52.37	37.34
	Sep	0.20	37.50	27.91	0.10	52.50	37.91		Sep	0.50	37.41	26.88	0.30	52.41	36.88
	Oct	0.20	37.71	27.42	0.10	52.71	37.42		Oct	0.50	37.32	26.26	0.30	52.32	36.26
	Nov	0.20	37.81	25.52	0.10	52.81	35.52		Nov	0.50	37.36	24.83	0.30	52.36	34.83
2013	Dec	0.20	37.90	21.96	0.10	52.90	31.96	2013	Dec	0.50	37.25	23.17	0.30	52.25	33.17
	Jan	0.20	37.85	19.32	0.10	52.85	29.32		Jan	0.50	37.63	21.29	0.30	52.63	31.29
	Feb	0.20	37.74	17.81	0.10	52.74	27.81		Feb	0.50	37.57	20.09	0.30	52.57	30.09
	Mar	0.20	37.75	18.63	0.10	52.75	28.63		Mar	0.50	37.29	20.11	0.30	52.29	30.11
	Apr	0.20	37.80	20.42	0.10	52.80	30.42		Apr	0.50	37.03	21.57	0.30	52.03	31.57
	May	0.20	37.99	23.68	0.10	52.99	33.68		May	0.50	37.15	23.44	0.30	52.15	33.44
	Jun	0.20	37.95	23.28	0.10	52.95	33.28		Jun	0.50	37.03	25.48	0.30	52.03	35.48
	Jul	0.20	37.66	25.96	0.10	52.66	35.96		Jul	0.50	37.14	27.14	0.30	52.14	37.14
	Aug	0.20	37.41	25.24	0.10	52.41	35.24		Aug	0.50	37.47	27.54	0.30	52.47	37.54
	Sep	0.20	37.60	27.36	0.10	52.60	37.36		Sep	0.50	37.44	27.21	0.30	52.44	37.21
	Oct	0.20	37.72	25.57	0.10	52.72	35.57		Oct	0.50	37.44	26.19	0.30	52.44	36.19
	Nov	0.20	37.92	23.95	0.10	52.92	33.95		Nov	0.50	37.56	24.98	0.30	52.56	34.98
	Dec	0.20	37.96	21.77	0.10	52.96	31.77		Dec	0.50	37.62	23.22	0.30	52.62	33.22
2014	Jan	0.20	37.98	19.01	0.10	52.98	29.01	2014	Jan	0.50	37.72	20.96	0.30	52.72	30.96
	Feb	0.20	37.83	17.70	0.10	52.83	27.70		Feb	0.50	37.64	19.59	0.30	52.64	29.59
	Mar	0.20	37.92	18.91	0.10	52.92	28.91		Mar	0.50	37.24	19.88	0.30	52.24	29.88
	Apr	0.20	37.93	21.13	0.10	52.93	31.13		Apr	0.50	37.02	21.83	0.30	52.02	31.83
	May	0.20	38.09	23.74	0.10	53.09	33.74		May	0.50	37.12	23.43	0.30	52.12	33.43
	Jun	0.20	37.96	23.89	0.10	52.96	33.89		Jun	0.50	37.08	24.75	0.30	52.08	34.75
	Jul	0.20	37.74	25.36	0.10	52.74	35.36		Jul	0.50	37.18	26.87	0.30	52.18	36.87
	Aug	0.20	37.55	26.26	0.10	52.55	36.26		Aug	0.50	37.49	27.14	0.30	52.49	37.14
	Sep	0.20	37.55	28.29	0.10	52.55	38.29		Sep	0.50	37.63	26.85	0.30	52.63	36.85
	Oct	0.20	37.75	26.73	0.10	52.75	36.73		Oct	0.50	37.38	26.48	0.30	52.38	36.48

	Nov	0.20	37.96	24.43	0.10	52.96	34.43		Nov	0.50	37.57	24.80	0.30	52.57	34.80
	Dec	0.20	38.05	21.66	0.10	53.05	31.66		Dec	0.50	37.55	22.54	0.30	52.55	32.54
2015	Jan	0.20	38.04	18.92	0.10	53.04	28.92	2015	Jan	0.50	37.62	20.92	0.30	52.62	30.92
	Feb	0.20	37.96	17.76	0.10	52.96	27.76		Feb	0.50	37.59	19.76	0.30	52.59	29.76
	Mar	0.20	37.92	18.91	0.10	52.92	28.91		Mar	0.50	37.24	19.88	0.30	52.24	29.88
	Apr	0.20	37.99	21.01	0.10	52.99	31.01		Apr	0.50	37.11	21.90	0.30	52.11	31.90
	May	0.20	38.10	21.43	0.10	53.10	31.43		May	0.50	36.93	23.76	0.30	51.93	33.76
	Jun	0.20	37.99	24.14	0.10	52.99	34.14		Jun	0.50	37.02	24.74	0.30	52.02	34.74
	Jul	0.20	37.67	23.61	0.10	52.67	33.61		Jul	0.50	37.13	26.26	0.30	52.13	36.26
	Aug	0.20	37.45	28.19	0.10	52.45	38.19		Aug	0.50	37.41	27.21	0.30	52.41	37.21
	Sep	0.20	37.60	28.37	0.10	52.60	38.37		Sep	0.50	37.53	26.92	0.30	52.53	36.92
	Oct	0.20	37.75	27.81	0.10	52.75	37.81		Oct	0.50	37.42	26.47	0.30	52.42	36.47
	Nov	0.20	37.89	24.85	0.10	52.89	34.85		Nov	0.50	37.45	25.01	0.30	52.45	35.01
	Dec	0.20	37.99	21.65	0.10	52.99	31.65		Dec	0.50	37.76	22.94	0.30	52.76	32.94

Potential Cyclone Input Conditions in Delft3D

B.2 Upward and Downward Shifts of Potential Storm Track After June 5, 2007.

B.2.1 Upward shift of storm track after June 6, 2007.

Time (2007)	Original Track		Up 0.1°		Up 0.2°		Up 0.3°		Up 0.5°		Up 1.0°	
	Lat (°)	Lon (°)	Lat (°)	Lon (°)	Lat (°)	Lon (°)	Lat (°)	Lon (°)	Lat (°)	Lon (°)	Lat (°)	Lon (°)
Before	On the identical storm track											
06/06 00h	22.60	60.00	22.70	60.10	22.80	60.20	22.90	60.30	23.10	60.50	23.60	61.00
06/06 06h	23.10	59.50	23.20	59.60	23.30	59.70	23.40	59.80	23.60	60.00	24.10	60.50
06/06 12h	23.80	59.20	23.90	59.30	24.00	59.40	24.10	59.50	24.30	59.70	24.80	60.20
06/06 18h	24.50	58.90	24.60	59.00	24.70	59.10	24.80	59.20	25.00	59.40	25.50	59.90
06/07 00h	24.80	58.40	24.90	58.50	25.00	58.60	25.10	58.70	25.30	58.90	25.80	59.40
06/07 06h	24.90	58.30	25.00	58.40	25.10	58.50	25.20	58.60	25.40	58.80	25.90	59.30
06/07 12h	25.10	58.20	25.20	58.30	25.30	58.40	25.40	58.50	25.60	58.70	26.10	59.20
06/07 18h	25.50	58.10	25.60	58.20	25.70	58.30	25.80	58.40	26.00	58.60	26.50	59.10
06/08 00h	25.90	57.80	26.00	57.90	26.10	58.00	26.20	58.10	26.40	58.30	26.90	58.80

B.2.2 Downward shift of storm track after June 6, 2007.

Time (2007)	Original Track		Down 0.1°		Down 0.2°		Down 0.3°		Down 0.5°		Down 1.0°	
	Lat (°)	Lon (°)	Lat (°)	Lon (°)	Lat (°)	Lon (°)	Lat (°)	Lon (°)	Lat (°)	Lon (°)	Lat (°)	Lon (°)
Before	On the identical storm track											
06/06 00h	22.60	60.00	22.50	59.90	22.40	59.80	22.30	59.70	22.10	59.50	21.60	59.00
06/06 06h	23.10	59.50	23.00	59.40	22.90	59.30	22.80	59.20	22.60	59.00	22.10	58.50
06/06 12h	23.80	59.20	23.70	59.10	23.60	59.00	23.50	58.90	23.30	58.70	22.80	58.20
06/06 18h	24.50	58.90	24.40	58.80	24.30	58.70	24.20	58.60	24.00	58.40	23.50	57.90
06/07 00h	24.80	58.40	24.70	58.30	24.60	58.20	24.50	58.10	24.30	57.90	23.80	57.40
06/07 06h	24.90	58.30	24.80	58.20	24.70	58.10	24.60	58.00	24.40	57.80	23.90	57.30
06/07 12h	25.10	58.20	25.00	58.10	24.90	58.00	24.80	57.90	24.60	57.70	24.10	57.20